

# M

# edical

# TIMES

THE JOURNAL OF GENERAL PRACTICE

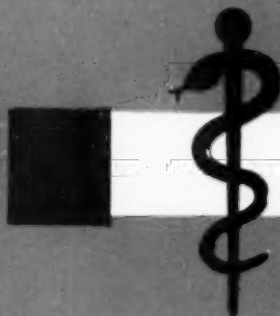
Clinical Ballistocardiography  
Topical Use of the Antibiotics  
Treatment of Alcoholism  
Wound Disruption  
Cancer of the Colon and Rectum (Refresher)  
The Art of Medicine—1953  
Clinico-Pathological Conferences  
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Editorials  
Contemporary Progress  
Medical Book News  
Letters to the Editor

Contents Pages 5a, 7a  
Modern Therapeutics  
Modern Medicinals

NO. 8

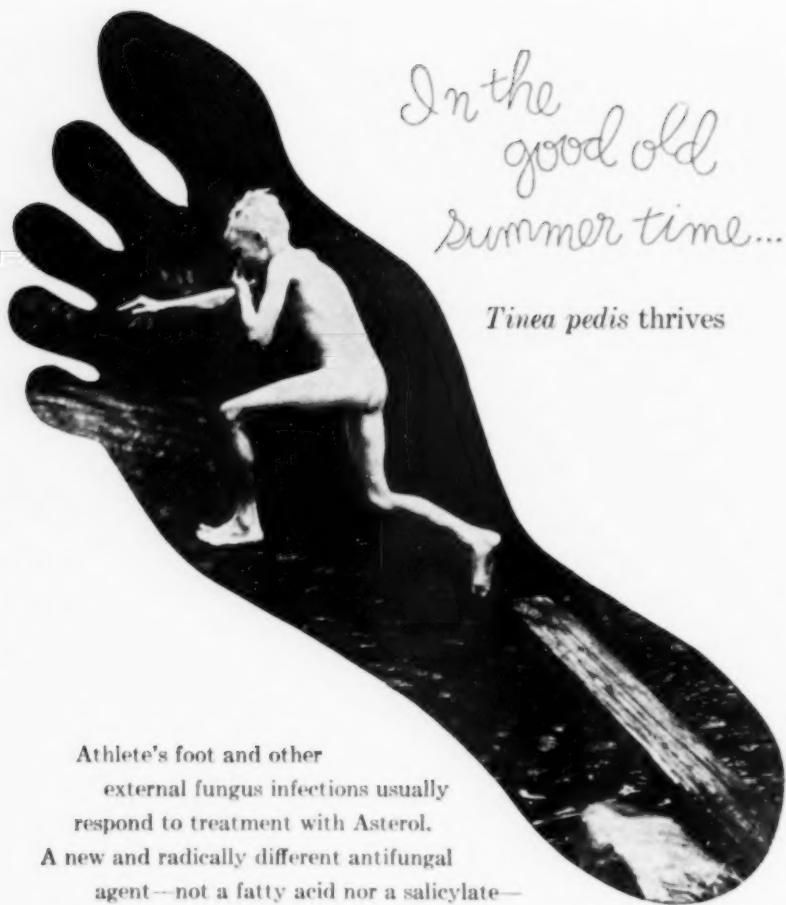
AUGUST 1953

VOL. 21



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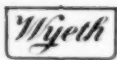
\*Peshkin, M.M., and others:  
Ann. Allergy 9:727 (Nov.-Dec.) 1951

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Opinions expressed in articles are those of the authors and do not necessarily reflect the opinion of the editors or the Journal.

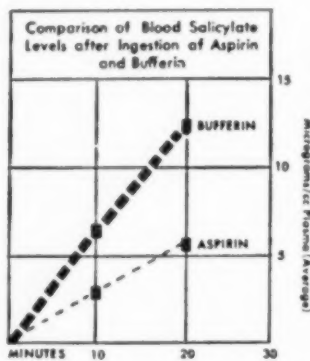
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2. Gastric Tolerance for Aspirin and Buffered Aspirin. Ind. Med. 20: 480, Oct. 1951

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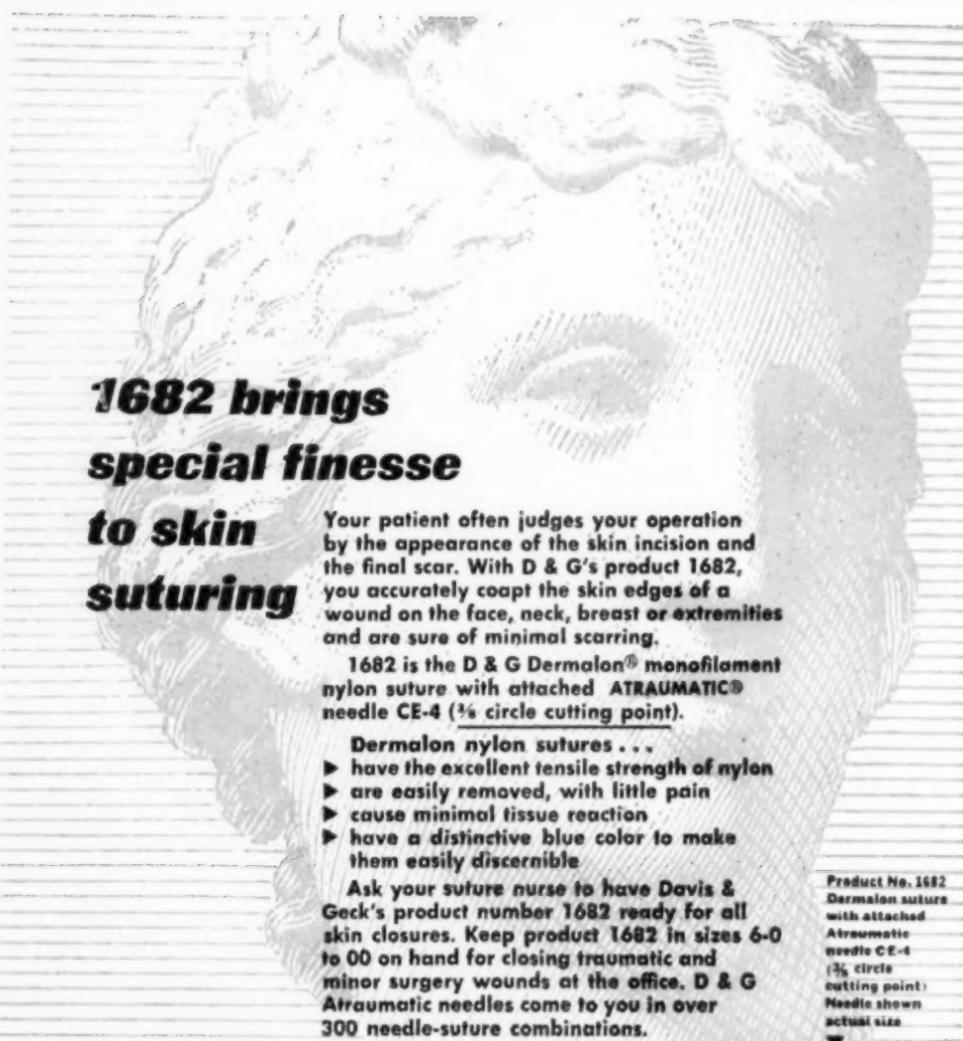
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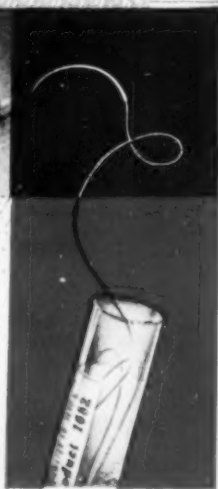
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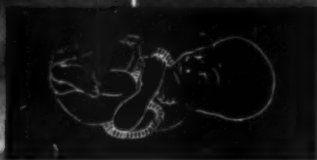
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#### **REFERENCES:**

1. Gitman, L., and Kaplowitz A.: Use of diethylstilbestrol in complications of pregnancy. New York State J. Med. 50:2823; 1950.
2. Ross, J.S.: Use of diethylstilbestrol in the treatment of threatened abortion. N. Nat. M.A. 43:20, 1951.
3. Karnaky, K.J.: Am. J. Obsts. & Gynec. 58,622. 1949.

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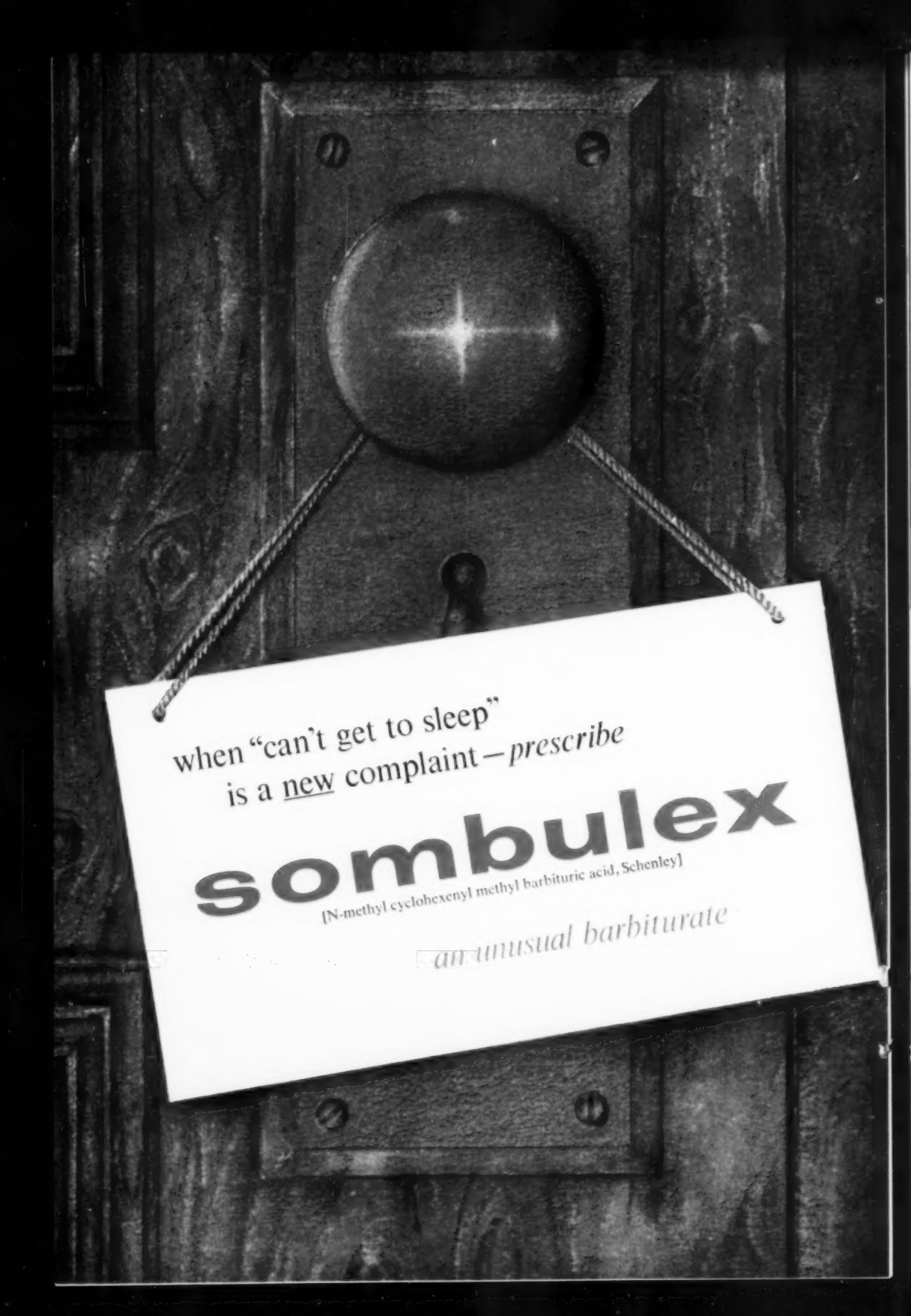
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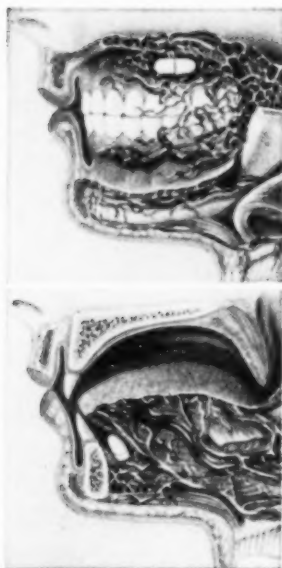
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\*PESCANILLA, R. P., AND GERMAN, G. S. J. CLIN. ENDOCRINOL. 10:248, 1950.

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MEDICAL TIMES



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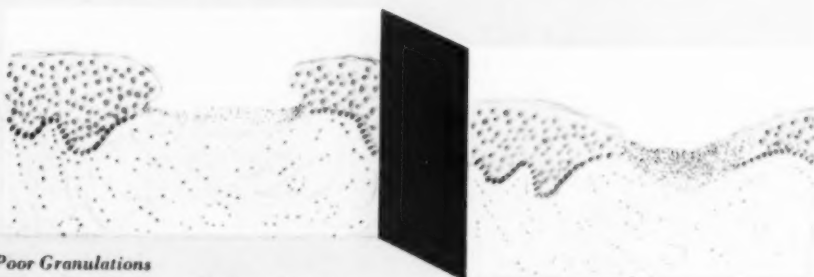
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ointment

solution (plain)

promotes the growth of healthy granulations



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(1) Moss, N. H.; Morrow, B. A.; Long, R. C., and Ravdin, E. S.: Effectiveness of Chloresium in Wound Healing and Debridement Effects, J. A.M.A. 140:1336 (Aug. 27) 1949. (2) Niemire, B. J.: Delayed Healing in Pilonidal Cyst Wounds, Journal Lancet 71:364, 1951. (3) Combes, F. C.; Zuckerman, R., and Kern, A. B.: Chlorophyll in Topical Therapy, New York State J. Med. 52:1025, 1952. (4) Lowry, K. F.: Management of Resistant, Nonhealing Skin Lesions, Postgrad. Med. 11:523, 1952.

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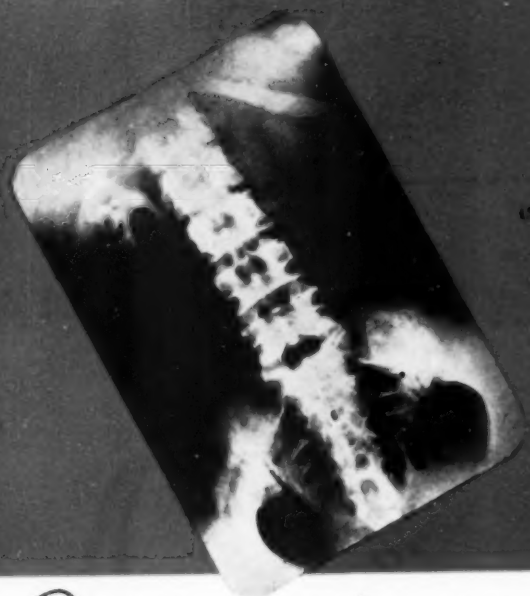
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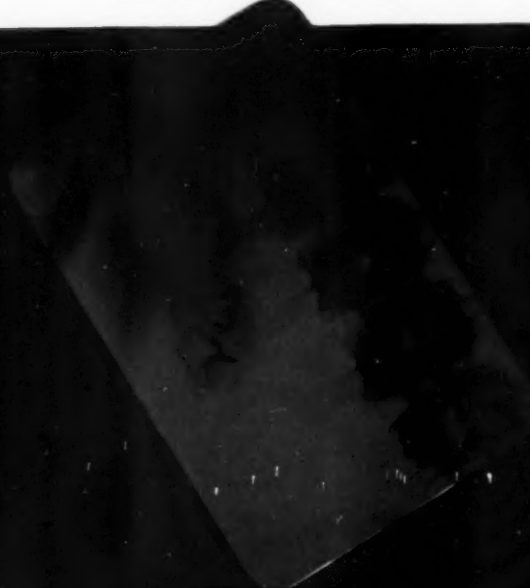
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1. Reich, W. J., et al. (1951), A Recent Advance in Estrogenic Therapy. I. *Amer. J. Obst. & Gynec.*, 62:427, August. 2. Perloff, W. H. (1951), Treatment of the Menopause. *ibid.*, 61:670, March. 3. Reich, W. J., et al. (1952), A Recent Advance in Estrogenic Therapy. II. *Amer. J. Obst. & Gynec.*, 64:174, July.

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*No Taste or Aftertaste*

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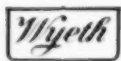
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Treatment<sup>3</sup> has a twofold purpose: To destroy the trichomonads and to keep the vagina dry. Floraquin, with its acid and sugar content, maintains a normal vaginal pH of 3.8 to 4.4 and encourages the growth of the normal Döderlein bacilli and secretions.

Active treatment with Floraquin

should be continued<sup>4</sup> through at least two or three menstrual periods to assure successful cure.

It is available as powder and vaginal tablets.

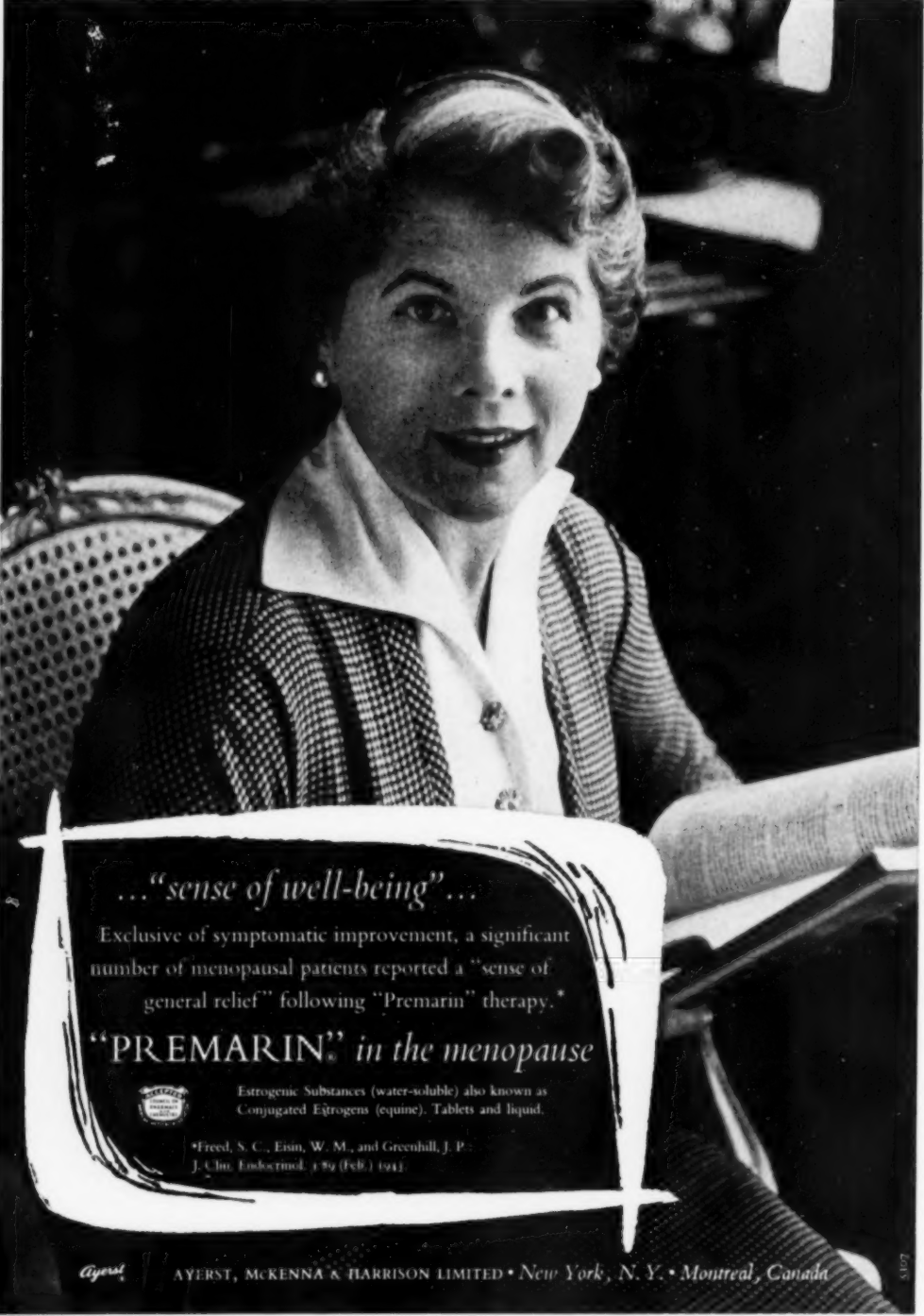
1. Savage, M. B., in discussion of Davis, C. H., and Grand, C. G.: *Trichomonas Vaginalis* Donné: An Evaluation of Experimental and Clinical Data, *Am. J. Obst. & Gynec.* 64: 544 (Sept.) 1952.

2. Upton, J. R.: Symposium: Certain Aspects of Office Treatment in Obstetrics and Gynecology: *Trichomonas Vaginalis* Vaginitis, *West. J. Surg.* 60:222 (May) 1952.

3. Kleegman, S. J.: Treatment of *Trichomonas Vaginitis*, *GP* 6:49 (Aug.) 1952.

4. Kanter, A. E.: The Recognition and Treatment of Vaginal Lesions, *Postgrad. Med.* 12:457 (Nov.) 1952.

**SEARLE** *Research in the Service of Medicine*



...*"sense of well-being"*...

Exclusive of symptomatic improvement, a significant number of menopausal patients reported a "sense of general relief" following "Premarin" therapy.\*

**"PREMARIN" in the menopause**



Estrogenic Substances (water-soluble) also known as Conjugated Estrogens (equine). Tablets and liquid.

\*Freed, S. C., Eisn, W. M., and Greenhill, J. P.:  
J. Clin. Endocrinol. 3: 89 (Feb.) 1943.

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AYERST, MCKENNA & HARRISON LIMITED • New York, N. Y. • Montreal, Canada

Case No. ....  
 Name..... Year of birth.....  
 Address.....  
 Referred by.....

1 means examined and found abnormal ✓ means examined and found normal

# HISTORY

Chief Complaint:

Present Illness:

Diabetes  
 Hypertension  
 Kidney disease  
 Heart disease  
 Cancer

# FAMILY HISTORY

Parents

Siblings

Childhood diseases  
 Scarlet fever  
 Rheumatic fever  
 Chorea  
 Diphtheria  
 Pneumonia  
 Influenza  
 Pleurisy  
 Tuberculosis

Pregnancies (toxicity\* deliveries)  
 Abortions  
 Operations

Use center section to record  
 PAST HISTORY

Get dates, describe the disease, duration. Any complications?

when the history  
 hints at diabetes

# CLINITEST®

BRAND

for urine-sugar analysis

CASES

10 20 30 40 50 60

SISTER

BROTHER

MOTHER

FATHER

UNCLE

AUNT

COUSIN

GRANDFATHER

GRANDMOTHER

DAUGHTER-SON

NIECE-NEPHEW

# The Diabetic Relatives of 265 Diabetics<sup>1</sup>

In view of "...the very high incidence of... unsuspected cases among the blood relatives of diabetic patients,"<sup>2</sup> urine-sugar testing of all such individuals should be routine and frequent.

1. Barach, J. H.: Diabetes and Its Treatment, New York, Oxford University Press, 1949, p. 38.

2. Allen, F. M.: Diabetes Mellitus, in Piersol, G. M., and Bortz, E. L.: Cyclopaedia of Medicine, Surgery, Specialties, Philadelphia, F. A. Davis Company, 1951, vol. 4, p. 505.



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 Ames Company of Canada, Ltd., Toronto

# LETTERS TO THE EDITOR

This department is offered as an Open Forum for the discussion of topical medical issues. All letters must be signed. However, to protect the identity of writers, who are invited to comment on controversial subjects, names will be omitted when requested.

## Files for Future Reference

"I read the *MEDICAL TIMES* thoroughly and have culled many of its articles for my files for future reference. I usually turn first to your Special Article—these are excellent summarizations."

L.H.C., M.D.  
Washington, D.C.

## Case Report

"The case report in your June 1953 issue of a large ovarian cyst, free fluid in the abdomen and lung signs (there's no mention of pleural involvement) strongly hint the possibility that this was a case of Meig's Syndrome, a rare condition."

S. Smedresman, M.D.  
New York, N.Y.

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Chadron, Neb.

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Thus restoration of normal hemoglobin and erythrocyte levels depends on the replacement of every related hemapoietic substance. Anemia may fail to respond to therapy until all nutritional deficiencies and imbalances are corrected.

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The Complete Hematinic


# Heptuna plus

1. McLester, J. S.: Nutrition and Diet in Health and Disease, Ed. 5, W. B. Saunders and Co., Phila. and London, p.627, 1949
2. Viltner, R. W. and Thompson, C.: Nutrition and the Control of Chronic Disease, Public Health Reports, Vol. 66, May 18, 1951

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(Vol. 81, No. 8) AUGUST 1953

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VITAMIN A	5,000 U.S.P. UNITS
VITAMIN D	500 U.S.P. UNITS
THIAMINE HYDROCHLORIDE	2 mg.
RIBOFLAVIN	2 mg.
PYRIDOXINE HYDROCHLORIDE	0.1 mg.
NIACINAMIDE	10 mg.
CALCIUM PANTOTHENATE	0.33 mg.
COBALT	0.1 mg.
COPPER	1 mg.
MOLYBDENUM	0.2 mg.
CALCIUM	37.4 mg.
IODINE	0.05 mg.
MANGANESE	0.033 mg.
MAGNESIUM	2 mg.
PHOSPHORUS	29.0 mg.
POTASSIUM	1.7 mg.
ZINC	0.4 mg.

With other B-Complex Factors from Liver

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**the diarrhea season!**



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**contains no added carbohydrate**

DIARRHEA. In simple or nonspecific diarrheas, Dryco without added carbohydrate is indicated. Symptomatic relief is usually achieved with a Dryco formula diluted 1 tablespoonful Dryco with 3 ounces of water.

**low in fat high in protein**

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Additional data and samples will be mailed on request.

\*Jeans, P. C., and Marriott, W. McKim: *Infant Nutrition*, ed. 4, St. Louis, C. V. Mosby Co., 1947.



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Enriched with vitamins A and D.  
Available at pharmacies in 1 and 2½ lb. cans.*



**for the summer infant formula**

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torments  
pregnant  
women**

**samples of *gentia-jel*... write**

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division of Foster-Milburn Co., Dept. MT  
468 Dewitt St., Buffalo 13, N. Y.

in leukorrhea, itch and burning  
due to monilial vaginitis...

*nothing works*  
*like gentia-jel*

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violet in the new plastic single-  
dose disposable applicator for  
the daintiest, easiest way to  
apply this specific in pregnancy  
moniliasis.

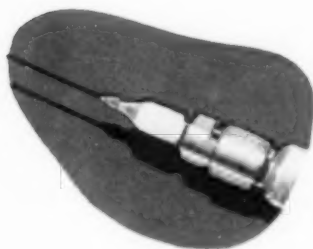
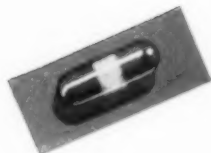
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relief of symptoms...93% clinical  
cure and improvement rate.

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violet therapy for safe daily use  
by the patient throughout en-  
tire pregnancy...without messi-  
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relieves **hay fever** distress...



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effective antihistaminic

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BENADRYL Hydrochloride is available in a variety of forms—including Kapsals,\* 50 mg. each; Capsules, 25 mg. each; Elixir, 10 mg. per teaspoonful; and Steri-Vials,\* 10 mg. per cc. for parenteral therapy.



*Parke, Davis & Company*



*New orally effective agent  
for functional uterine bleeding*

# Blutene

(TRADE MARK REG.)

**CHLORIDE - SULFATE**

**(TOLONIUM CHLORIDE-SULFATE, ABBOTT)**

**W**ITH the introduction of BLUTENE, a long-researched, oral, nonhormonal technique has at last become available for the management of functional uterine bleeding (menometrorrhagia).\*

## a new concept

Antihemorrhagic in effect, BLUTENE bears no structural resemblance to any existing antimenorrhagic medication. One 100-mg. tablet taken with each meal at the time of bleeding will relieve symptoms in many patients, frequently within one course of treatment.

## recurrence infrequent

Lathrop and Carlisle<sup>1</sup> have reported on the use of BLUTENE in 63 cases of hypermenorrhea. Results were "good" in 45 patients, "fair" in 15. *Only two patients in the "good" group later experienced persistent recurrence.* When menorrhagic symptoms do recur, they are often promptly controlled with an additional course of BLUTENE.

## well tolerated

Various investigators<sup>1,2,3</sup> have noted that side effects from BLUTENE are transient or relatively minor in nature. Occasional nausea, tenesmus, or burning on urination are usually relieved by increased water intake, or decreased dosage, or both. And in many cases, side reactions are entirely absent. BLUTENE often succeeds where other forms of therapy have failed. Write today for complete literature. In sugar-coated tablets, 100-mg., bottles of 25 and 100.

Abbott Laboratories, North Chicago, Ill.

**Abbott**



1. Lathrop, C. A., and Carlisle, W. T., *Oral Toluidine Blue in the Treatment of Hypermenorrhea*, *Amer. J. Obst. & Gynec.*, 64:1376, December, 1952.

2. Rumbolz, W. L., Moon, C. F., and Novelli, J. C., *Use of Protamine Sulfate and Toluidine Blue for Abnormal Uterine Bleeding*, *Amer. J. Obst. & Gynec.*, 63:1029, May, 1952.

3. Bickers, W., *Toluidine Blue—An Evaluation in the Treatment of Uterine Bleeding*, in press, *Amer. J. Obst. & Gynec.*

**\*Important:** BLUTENE should be used only after adequate gynecologic examination has ruled out organic disease as the cause of bleeding.

# MODERN MEDICINALS

These brief resumes of essential information on the newer medicinals, which are not yet listed in the various reference books, can be pasted on file cards and a record kept. This file can be kept by the physician for ready reference.

**Arocen Tablets**, Central Pharmacal Co., Seymour, Ind. Each tablet contains benzo-caine, 3 mg., in a flavored base, with saccharin. As an aid in controlling the appetite for eating and smoking. **Dose:** As determined by physician. **Sup:** In bottles of 100 tablets.

**Bevatin-12** (Bav-a-tine), Smith-Dursey Co., Lincoln, Nebraska. Crystalline Vitamin B-12 preparation for intramuscular use. **Dose:** As determined by physician. **Sup:** In 10 cc. and 30 cc. vials of 30 mcg. and 60 mcg.; and in 10 cc. vials of 100 mcg., 1,000 mcg. and 2,000 mcg.

**Calcisalin Tablets**, The Harrower Laboratory Inc., Jersey City 4, N. J. Vitamins and minerals plus Calcium Lactate, 2.0 gm. and Aluminum Hydroxide Dried Gel, U.S.P., 1.5 gm. Prenatal dietary supplement. **Dose:** Two tablets 3 times daily after meals or more as directed by the physician. **Sup:** In bottles of 100 tablets.

**Chlor-Trimeton** 8 mg. Repeat Action Tablets with SODIUM PENTOBARBITAL, 50 mg. (Klor-tri-me-ton; So-di-um Pen-to-bar-bitol), Schering Corp., Bloomfield, N. J. When prolonged antihistamine action and mild sedation from a single tablet is required for symptomatic relief from manifestations of allergic states. **Dose:** Adults, 1 tablet at bedtime or every 8 to 10 hours during the day. **Sup:** In bottles of 100 tablets.

**Cortomyd Ophthalmic Suspension-Sterile**, Schering Corp., Bloomfield, N. J. Cortisone Acetate (microcrystalline) 1.5% and Sodium Sulfacetamide 10%. Antibacterial and anti-inflammatory; recommended

for acute, chronic and allergic blepharitis, spastic entropion due to local irritation, corneal ulcer, conjunctivitis, interstitial keratitis, keratitides, phlyctenular keratoconjunctivitis, herpes zoster ophthalmicus, neovascularization, episcleritis, scleritis, acute, chronic traumatic iritis, and iridocyclitis. **Dose:** One or 2 drops instilled into the conjunctival sac every 2 or 3 hours during the day, less often at night, until a favorable response is obtained. **Sup:** In bottles containing 5 cc.

**Dalzinate Tablets**, The E. L. Patch Co., Stoneham 80, Mass. Phenobarbital, 8.1 mg.; Homatropine Methylbromide, 1.3 mg.; Dihydroxy aluminum aminoacetate, 0.5 Gm.; Ascorbic acid (Vitamin C) as sodium ascorbate, 25 mg. For the treatment and control of peptic ulcer, hyperacidity, pyloric spasm and associated conditions. **Dose:** One or 2 tablets, 1 to 2 hours after meals and upon retiring, or as directed by the physician. **Sup:** In bottles of 100 and 500 tablets.

**Diolandrone** (Di-ol-an-drone), G. W. Carnrick Co., Newark 4, N. J. To promote growth and euphoria in nutritional abnormalities; tendency to masculinization is slight. **Dose:** Adult, 10 mg. to 40 mg. daily, oral, buccal or intramuscular routes. **Sup:** In bottles of 30 tablets, in hypoglossals of 30, and the suspension in 10 cc. vials.

**Distreptocin Parenteral** (Distrep-to-sin), Eli Lilly & Co., Indianapolis 6, Indiana. Mixture of equal parts of streptomycin and dihydrostreptomycin base, as the sulfates for conditions identical to those of either of the individual components. **Dose:** Average daily dose is 1 to 2 Gm. and as much as 4 Gm. in unusually severe cases; by deep intramuscular injection only in the large muscles. **Sup:** In ampuls of 1 Gm. and 5 Gm.

—Concluded on page 44a



## Invitation to asthma?

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**relief in minutes...** Tedral brings symptomatic relief in a matter of minutes. Breathing becomes easier as Tedral relaxes smooth muscle, reduces tissue edema, provides mild sedation.

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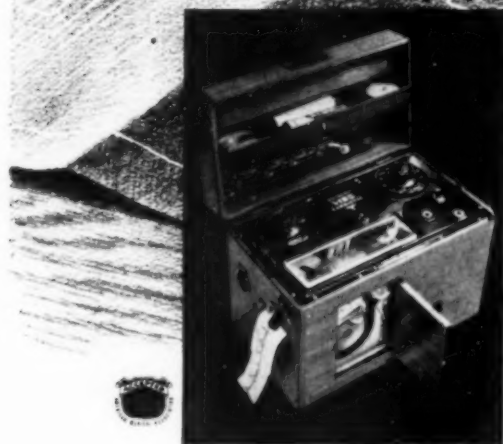
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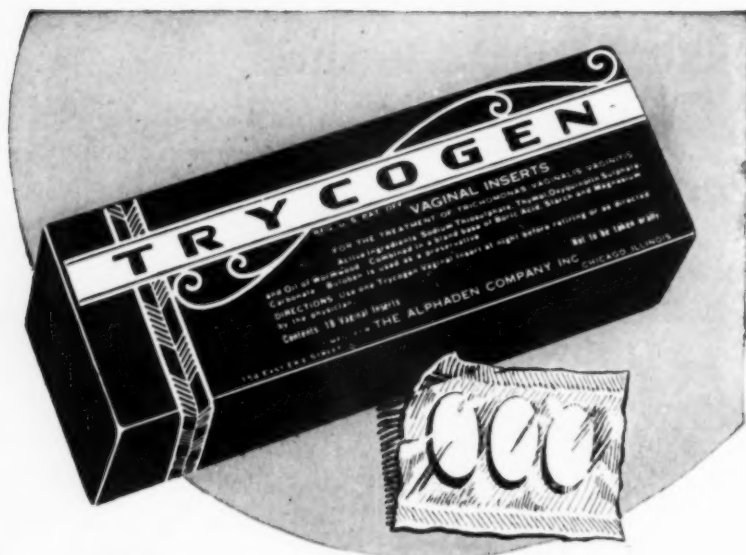
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**Norexine Capsules**, Smith-Dorsey Co., Lincoln, Nebraska. Contains d-amphetamine and B-complex vitamins. Appetite depressant. **Dose:** Average is 1 capsule 3 times daily. **Sup:** In bottles of 100, 500 and 1,000 capsules.

**Pamine Bromide**, 2.5 mg. Compressed tablets, The Upjohn Co., Kalamazoo, Michigan. Epoxystrophine tropate methylbromide. New parasympatholytic agent indicated whenever anticholinergic effects are desired. **Dose:** Average is 2.5 mg. orally 1/2 hour before meals and 2.5 to 5 mg. at bedtime, or as determined by physician. **Sup:** In bottles of 100 tablets.

**Paveril Phosphate with Amytal Tablets**, Eli Lilly & Co., Indianapolis 6, Ind. Dioxylone Phosphate, Lilly with Amobarbital, Lilly. For patients with emotional disturbances which may increase nervous ten-

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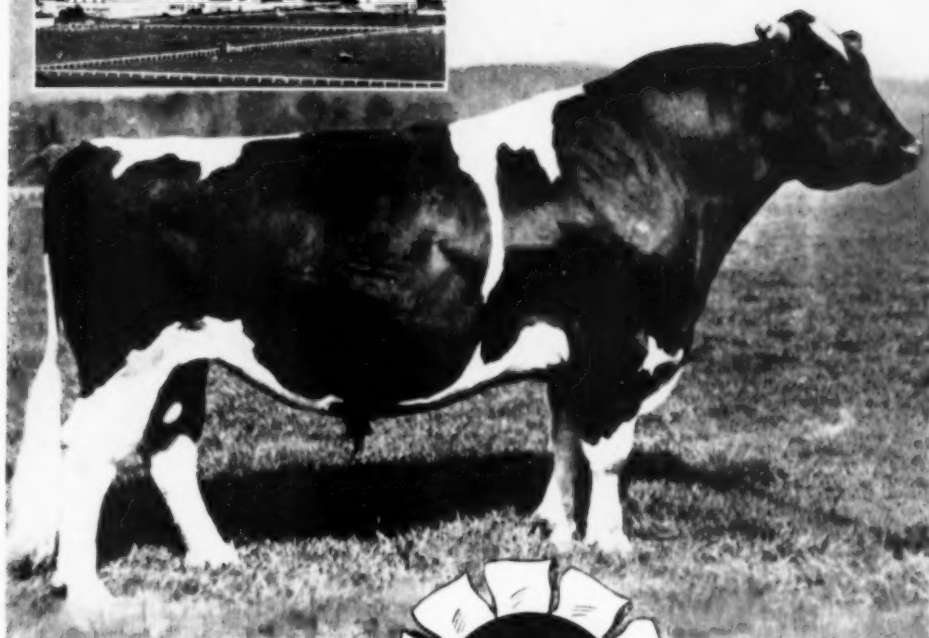
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# Clinical

## Ballistocardiography

ROBERT E. HAYES, M.D.  
Denver, Colorado

The term "ballistocardiogram" is derived from the Greek, and literally means a drawing of the body movements produced by the heartbeat. The principle is based on Newton's third law of motion; for every acting force, there is an equal and opposite reaction. These movements have been recognized for hundreds of years, but it was not until 1877 that the first attempt was made to measure these forces.

Despite the efforts of Gordon and others,<sup>1-4</sup> however, no real advancement was made in technique or application until Starr and his associates<sup>5</sup> reported their original investigations in 1939. They demonstrated many of the physiological factors concerned in the production of the ballistocardiogram, devised methods for determining cardiac output, and carried out clinical studies. This provided the stimulus to others to study this instrument, but, because of the size and expense of the equipment, only a few of the large institutions could carry on the work.

In 1949, Dock<sup>6</sup> gave impetus to the solution of the problem by describing a simple apparatus which records the movements of the body with each heartbeat, without the use of specially-constructed tables and large equipment for recording. This device consists of a horizontal bar, which rests on the patient's shins while he reclines upon a rigid table. Motion

of the bar is picked up by a photoelectric cell in the magnetic field, and is recorded on an electrocardiogram machine. The total cost of the apparatus is about fifty dollars.

**This Clinical Method** of study is quite simple. The apparatus is not expensive, and there is no discomfort to the patient. Fortunately, the ballistocardiogram tracings are easy to read, despite their complex origin. It seems likely that the clinical use of the ballistocardiogram will become widespread, and a considerable body of useful information, not otherwise obtainable, may be gained.

For the past year, in our office, we have routinely taken ballistocardiographic tracings on every patient who required an electrocardiogram. The BCG is taken immediately following the routine EKG tracing, and required only a few additional minutes. It is preferably done two to three hours after a meal. Tobacco is to be avoided during this time. Any heavy or tight garments should be removed, to avoid undesired damping effect. The record is taken during quiet respiration and during forced inspiration and expiration. It has been our experience that the most important factor in the entire examination is the use of a suitable table. If there is any doubt about the rigidity of the table, one can check a tracing obtained from a normal patient on the questioned table against a tracing with

the same patient lying on the floor; if the table is suitable, the tracings will be identical.

The typical BCG pattern consists of a sequence of prominent waves occurring during the different phases of the cardiac systole. The four classical waves may be identified, and are designated H, I, J, and K.

The H-wave is an upward deflection, and has been contributed to the apical thrust of early systole and auricular contraction. The H-wave is normally followed by a footward movement, the I-wave, which is produced by the recoil of the body from the injection of the blood from the ventricles into the ascending aorta and pulmonary arteries. The J-wave is a headward deflection, and is produced by the impact of the blood against the aortic arch and the pulmonary-artery bifurcation. The succeeding footward movement, the K-wave, results from the rapid deceleration of the blood, striking resistance in the aorta and other vessels. The diastolic vibrations are labeled L, M, N, and O, and are probably produced by after-vibration.

A normal BCG is W-shaped. The H-wave shows a greater variation, and may even vary from one normal record to another.

In interpreting the studies, many complexes must be considered. The finding of an isolated abnormality should not be considered significant. The common abnormalities of configuration are found in the I and J-waves, and of course special attention should be paid to these. The only important abnormality of the H-wave is a marked increase in amplitude, so that it reaches the size of the J-wave. If the diastolic waves exceed, in depth or height, the most prominent downward reflection or upward wave of the systolic complex, the tracing is abnormal.

It should be stressed that the tracings must be interpreted only with regard to the clinical history of the patient, and

with the usual reservations for a laboratory procedure. It should also be brought out that extra-cardiac factors such as pregnancy, fever, adrenal insufficiency, emphysema, and others, may greatly influence the ballistocardiographic waves.

### **Specific Abnormality Patterns**

have been reported in hypertension, coarctation of the aorta, rheumatic myocarditis, aortic insufficiency, aortic stenosis, both backward and forward types of congestive heart failure, gallop rhythm, and so forth; however, at the present time, the greatest clinical use of the ballistocardiogram is in the objective confirmation of a clinical impression of coronary-artery disease. Definitely abnormal ballistocardiographic changes are found in almost every case of myocardial infarction, if serial tracings are taken. However, it is not practical at this time to do ballistocardiograms on those patients who are hospitalized, inasmuch as a hospital bed is not a suitable table for the tracings.

It is not unusual to see patients with typical histories of angina pectoris in whom it is impossible to substantiate the diagnosis by any objective means. Various authors<sup>7-9</sup> have reported ballistocardiographic abnormalities in 75% of all patients with angina pectoris, which compares with only 25% abnormalities found in electrocardiograms. On the surface, these figures appear to be excellent; however, one should realize that as high as 50% of asymptomatic patients past 60 years of age have abnormal tracings. Advocates of the tracings will quickly point out that the abnormalities found in the ballistocardiograms will often precede the clinical symptoms of coronary-artery disease. White, Edwards, and Dry,<sup>10</sup> who carried on extensive pathological studies, were able to demonstrate the presence of a severe grade of coronary-artery sclerosis in well over two-thirds of the subjects more than 50 years of age, which would tend to support this hypothesis.

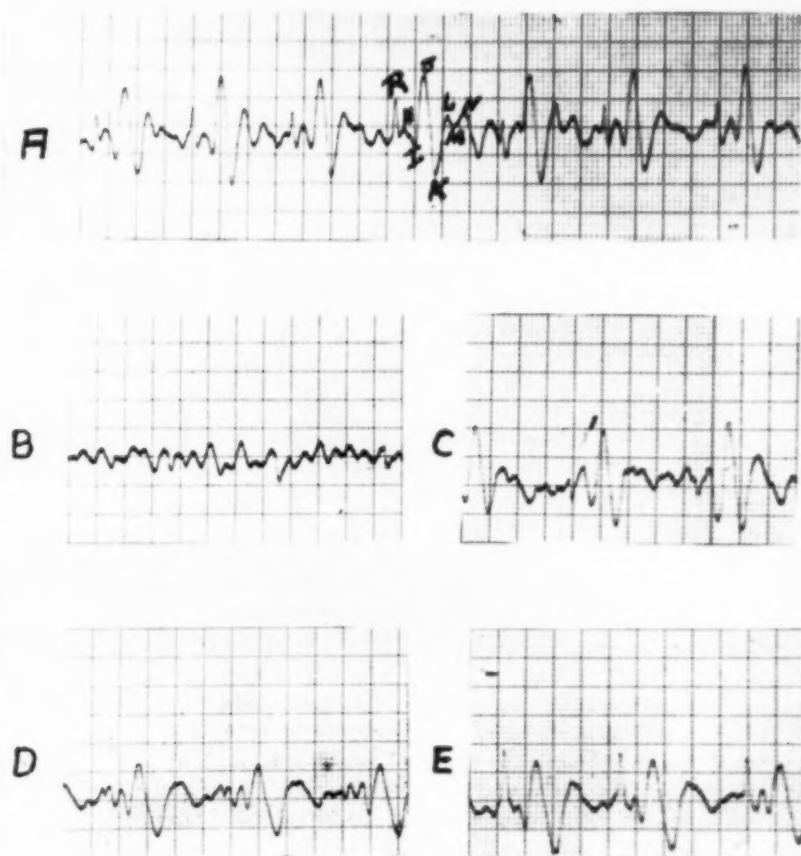
Probably the longest term study of

patients was reported by Starr<sup>11</sup> in 1947, in a followup of 90 healthy patients, on whom he had obtained ballistocardiograms in 1937. Of the original healthy 90 patients, 4 ballistocardiograms were definitely abnormal in form, and 6 were borderline in nature. Ten years later, 3 of the 4 patients with abnormal curves had definite coronary-artery disease, and the 6 borderline cases had all developed coronary-artery disease. He concluded

that the ballistocardiogram gave promise of identifying coronary-artery disease earlier in its course than had previously been possible.

Serial BCG's, taken in a large series of cases, have shown that there was a close correspondence between the clinical course of the myocardial infarction and the angina pectoris, in determining whether a patient's condition was improving or deteriorating.<sup>12</sup> This provides

Figure 1



a new objective means of following the progression of clinically evident cardiac pathology.

**In Taking and Interpreting Ballistocardiographic Tracings** on suspected cases of coronary-artery disease, one should remember that the ballistocardiogram and the electrocardiogram are records of two different processes, and that the correlation of these findings is not to be expected. This lack of correlation may easily be explained when one considers the mechanisms which are responsible for the recording of the tracing. The electrocardiogram reflects the electrical potential of the myocardium, while the ballistocardiogram is produced by, and depends upon, the functional integrity of the myocardium. It is a well-known fact that a small area of myocardial damage may produce a significant change in the electrocardiogram, but it does not necessarily follow that the force of the ejection of the blood from the heart will be affected. Conversely, a normal electrocardiogram may be obtained in a patient with myocardial damage, but the cardiac systole function is impaired, and the ballistocardiographic tracing may be abnormal.

### Case Histories

Figure 1 demonstrates the ballistocardiographic tracings in the following cases:

**Case 1.**—Tracing on an asymptomatic 32-year-old physician, entirely normal.

**Case 2.**—A 47-year-old male, who gave a history of substernal burning, with occasional radiation to the right shoulder and arm. This usually occurred at night, but had also occurred after exertion. He had seen several doctors, and several electrocardiograms had been taken, all of which were within normal limits. An upper gastro-intestinal series, a gall bladder series, and films of the dorsal and cervical spine, were all reported as normal. Examination in our office was completely normal. Routine laboratory examinations, including sedimentation

rate, were normal. The resting electrocardiogram was normal, and a two-step Masters test was borderline-normal. His ballistocardiogram showed a chaotic-type pattern. Because of his history and the ballistocardiographic findings, we made the diagnosis of angina pectoris, on the basis of arteriosclerotic heart disease. Four days after this examination, he had a massive anterior myocardial infarction, and was hospitalized for two months.

**Case 3.**—A 64-year-old nun, who had a history of substernal discomfort, which was occasionally left precordial in nature, but with no radiation. She was found to have a moderate degree of hypertension. The electrocardiogram and ballistocardiogram were both entirely negative. An upper gastro-intestinal series revealed a small hiatus hernia, which we thought was the cause of her discomfort.

**Case 4.** This entirely negative ballistocardiogram is that of a 36-year-old girl with advanced rheumatic heart disease, with mitral stenosis and insufficiency. This demonstrates that a ballistocardiogram can be normal in the face of advanced changes in the heart.

**Case 5.**—This 74-year-old man had a medical workup before a prostatectomy. His ballistocardiogram, as shown, is entirely normal. This is probably significant, inasmuch as he is past sixty years of age.

### Summary

1. The ballistocardiogram promises to satisfy the long-felt need for information concerning the functional state of the circulatory system.

2. It is a simple and inexpensive instrument, and can easily be adapted to office use.

3. The greatest clinical value of the ballistocardiogram at the present time is the field of coronary-artery disease.

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## DON'T OVERLOOK THE CASE REPORTS

**I**N addition to our regular quota of original articles, "Refresher" articles and departments, this issue, and every issue, contains selected Case Reports from the Clinico-Pathological Conference at New York University-Bellevue Medical Center. You will find them on pages 549-554. We recommend these studies as interesting and stimulating.

# Diagnosis Of Cancer Of The Colon And Rectum

This summarization attempts to cover the essential information on the subject and is designed as a time-saving refresher for the busy practitioner.

## Part 1

Cancer of the colon is a fairly common disease. Twelve to sixteen percent of carcinoma is of the large bowel and cancer is the most significant disease of the large bowel.

Many a patient comes to mind when the physician reads figures of this sort. And there are also memories of many patients who appeared for treatment only after the disease was beyond attack. Whether because of fear, waiting and seeing, or stoicism, this factor probably plays an integral part in the course any carcinoma will run regardless of the subsequent treatment. So common a factor is it in the history obtained by the physician treating a patient with carcinoma of the colon that the cases that stand out in one's mind are of those few people who came early to have a complaint investigated. Certainly, it is more likely that the early complainer can be given a better chance of a "five year survival" although the fact that this is not always true should not discourage a real interest in early diagnosis. With the therapy available today little can be added for the time being than to get the patient to the doctor early. It would seem therefore, that one of the prime responsibilities of the doctor would be a perpetuation of the currently active cancer education program—for the physician as well as for the laity. Once the patient has pre-

sented himself, it becomes the burden of the first doctor who sees him to allow neither an error of commission or of omission in diagnosis and recommended therapy.

The battle with cancer of the colon is one which five, six, or even seven out of ten patients should have a good chance of winning. The physician himself must become ever more expert in detecting cancer of the colon and rectum. This discussion will be concerned primarily with the detection of colon carcinoma.

The quotation of percentages is probably of some interest to most physicians although usually they represent the findings of the larger hospital centers. Any figures are apt to misrepresent the true incidence of a disease, of its cure rate, or of any of the symptoms of the disease. Nature apparently plays using very few rules. The patient ordinarily has no willingness to fit himself into a set of probabilities. His interest is in one statistic—his own. Still, these figures may help us gear our thinking. At times they do serve to point to the fallacy of our ways. For example, rather shocking data have at times been presented to show how many patients have undergone hemorrhoidectomy for rectal bleeding and then proved to have a colon or even a rectal carcinoma. Equally embarrassing is the reali-

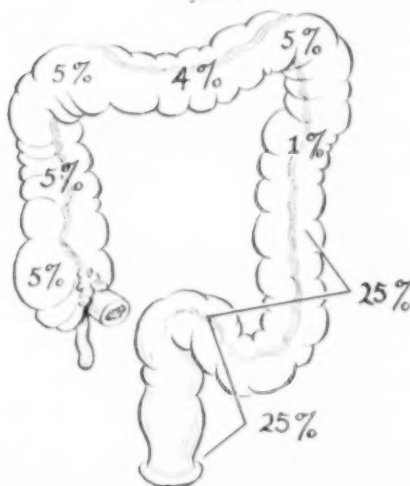
zation that people with low rectal tumors have often seen one or even two physicians who have not carried out a digital examination of the rectum. Very probably all of us have been guilty of errors as serious as this.

**Pathology** To a large degree, the symptoms of cancer of the colon or rectum, when symptoms are present, reflect the probable location of the tumor in the bowel. That this is so is because of the predilection for bulky, bleeding tumors to occur in the right half of the colon and the stenosing variety in the left half. Here again, rules are disobeyed, and true napkin ring lesions will occur far down in the right colon, although rarely, if ever, in the cecum. Within the colon itself, cancer occurs with an approximate frequency as shown in Figure 1. Almost entirely these are adenocarcinomas showing a varying amount of scirrhus change, and varying amounts of intraluminal projection. The bulkier lesions, particularly on the right side, may show only a mild indentation of the serosal surface, have a rubbery hard feel and present a rather amazing degree of fungatory, cauliflower-like mucosal surface. These lesions, as with most colonic malignancies, show a

pronounced tendency toward ulceration and hemorrhage, leading to a marked anemia. A hemoglobin level of 60% of normal is usually associated with less cachexia when the tumor is in the cecum or ascending colon than when it is in the left colon. The more commonly occurring sigmoid and recto-sigmoid lesions show a tendency to encircle the bowel, tightly puckering the entire bowel wall inward and decreasing the bowel lumen significantly by this fact alone. When the additional factor of intraluminal growth is added, complete colonic obstruction can and frequently does occur. The structural basis for the maxim that right sided lesions bleed and left sided lesions obstruct is clear. The obstructing lesions on the left do, however, ulcerate and bleed. Ulceration in a lesion seen on proctoscopy increases the likelihood that the lesion is malignant. Far from being an academic point, it may be remembered that more than three-fourths of the colon cancers can probably be visualized during a carefully performed proctoscopy. Microscopically, most colon malignancies show some degree of mucus production. It would appear that marked mucus production, either intracellular or extracellular, marks a colon tumor as a comparatively "wild" lesion, difficult of eradication even though growth may be slow. A very few cases of linitis plastica transformation similar to that seen in the stomach have been reported, none of them prior to death.

The local spread, regional and distant dissemination of colon tumors is pertinent from the standpoint of treatment as well as for diagnosis and prognosis. Because of their origin from lining epithelium of the bowel, these tumors may dwell for an unknown length of time in the mucosa and submucosa alone, growing into the lumen and extending to a limited degree proximally and distally. It is possible that seeding on the mucosa may occur, giving rise to metastatic colon tumors. If this

Figure 1

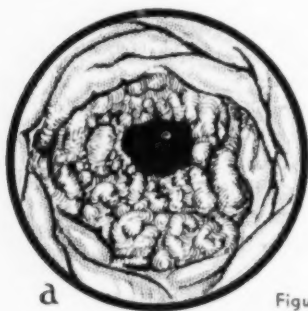


happens it must be quite rare. Even in this surface stage of growth, however, embolic spread to extracolonic tissues may develop. A discouragingly small primary lesion may be associated with fatal dissemination if such fertile territory as lung, liver, or bone marrow is offered even a small amount of seeded cancer tissue. This perhaps accounts for the hopeless attitude of both physicians and patients who flee in despair from pursuing a vigorous attack on cancer. Yet, it is a curious fact that huge tumors of the colon can be cured when they have not only involved all layers of the bowel, but neighboring structures as well. Why this so certainly is a puzzle. The growth of a colon cancer most usually will, if allowed time so to do, invade the muscularis mucosa and then the outer muscle layers and serosa of the bowel, when serosa is present. It has become custo-

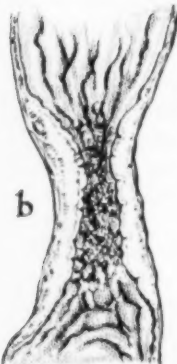
mary to investigate specimens of surgically removed bowel in some detail, particular attention being allotted to the detection of cancer cells residing:

- a. in the submucosal, muscular and peritoneal layers of the bowel
- b. in the peri-colonic fat
- c. in the removed lymphatics, veins and lymph nodes

Prognosis for tumor free survival in the case of a lesion deemed to have been removed in entirety by the surgeon has been shown to be proportional in large part to the presence or absence of tumor in these sites. A growth that has stopped short of involving the serosa of the bowel carries almost twice as favorable a prognosis. On the other hand, involvement of the muscular layers with or without serosal penetration more often is associated with venous involvement — a detracting factor of course. In the stenosing lesions,

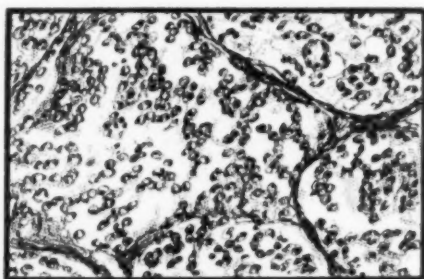


**Figure 2**  
Malignant stricture of sigmoid.

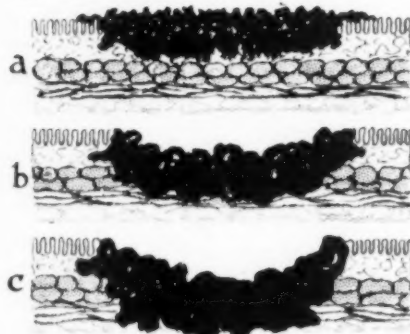


a. Proctoscopic view showing lesion encircling the bowel.

b. Longitudinal view showing puckering of bowel wall inward with decrease of lumen.



**Figure 3.** Microscopic view of Mucoid Adenocarcinoma.



**Figure 4.** Cancer invasion. a. mucosa. b. muscle layers. c. serosa.

it follows then that venous involvement is more frequent. This is more likely to be the type of lesion seen above the rectum in the left colon. The muscular layers, carrying as they do, a rich collection of nerves in the myenteric plexus, furnish an equally rich collection of perineural lymphatics. When these perineural lymphatics are involved by tumor there seems to be more frequent local recurrence of tumor following extirpation than is the case when these channels are uninvolved. Thus, a direct correlation would seem to exist between depth of penetration and prognosis. Again we find some basis for an old clinical aphorism that "the bigger the primary, the better the prognosis." When this holds true it often is applied to colon tumors with extensive intraluminal proliferation but with minimal depth of penetration of the bowel wall.

A pathological finding of clinical significance is the degree and type of lymph node involvement seen in cancer of the colon. In general, lymphatic drainage follows blood vascular drainage paths. The details of this anatomy become of primary importance in the planning of intelligent surgical maneuvers. Somewhat bizarre distribution of cancer cells from a colon primary finds explanation in the observation that whole groups of lymph nodes can be skipped by cells embolizing to a more proximally located collecting system of nodes and lymphatics. It is reported that this never happens in the right colon, where the more proximally placed nodes are never involved without involvement of the nodes nearest to the lesion. Probably one of the more interesting findings that has evolved from a searching study of lymphatic drainage of colon cancer is that rarely, if ever, is a lymph node measuring less than two millimeters in diameter involved with metastatic cancer. To the physician dealing with many colon tumors at the operating table this can be of utmost importance in planning his attack. The inflammatory component of

cancers is usually significant and no doubt accounts for the many nodes one often sees which prove one section to show only reactive hyperplasia.

### **From The Diagnostic Standpoint**

another pathological characteristic of many colon cancers is of utmost importance. This is the tendency for relatively mobile portions of the colon to become attached to adjacent structures, including other segments of colon, when involved with cancer. When this occurs, as it rather frequently does, there is a likelihood that physical findings of seemingly gloomy import will appear. Such findings can be the appearance of a mass either felt by the patient or discovered by the physician; the development of urinary symptoms; the frank evidence of massive intra-abdominal abscesses; the apparent occurrence of fistulous communications between bowel and bowel or between bowel and bladder. Quite often there has been a tendency to deny exploratory surgery on the basis of these findings. This attitude is disappearing to some extent, but its very existence need not be condoned except where there is ample other evidence of the disease being hopelessly entrenched. There exists a remarkable tendency for huge lesions of this sort to be slow growing. Frequently more than half of their bulk is attributable to inflammatory reaction and often large collections of necrotic tumor contribute to the abscess component. Even as ominous a finding as hepatic enlargement may be due to benign regional abscess formation in the liver. Not uncommonly the physical characteristics of inflammation are minimal or even absent, particularly in older patients, except for the tumefaction. Happily, the regional organs involved are often removable "en bloc" by methods usually adding surprisingly little to the operative hazard. More specifically, the lesions of this sort which one sees are, roughly in order of frequency:

- a. Rectum or recto-sigmoid attached

to uterus, uterine adnexa, posterior vagina, or prostate

- b.* Sigmoid colon to another portion of the sigmoid loop, to small bowel, or to bladder dome
- c.* Right colon to transverse colon or to small bowel
- d.* Transverse colon to small bowel or stomach
- e.* Splenic flexure to spleen, tail of pancreas or stomach.

Unfortunately, attachment to less easily excised or unapproachable structures also occurs. In general, these are retroperitoneal attachments, as to the bony pelvis, the abdominal wall, and to the structures about the head of the pancreas and ampulla of Vater region.

The discovery of a mass, particularly a moveable mass, probably should not be used as a criterion for a categorical "thumbs down" on surgery. Similarly, the appearance of a rectal shelf may not of itself spell defeat in the absence of an upper intestinal lesion.

### **Symptomatology and Diagnosis**

A knowledge of the pathology and physiology of the intestinal tract is usually amplified when one devotes time to eliciting the history of a patient who is suspected of harboring an abnormality of the colon or rectum. Expert though the physician may become in separating functional from organic large bowel disease, there are few who are willing to omit the diagnostic measures that a high index of suspicion calls for. There may be no symptoms of a well established cancer. Probably, however, some or all of the better known complaints will be heard in most cases of large bowel tumors. When large groups of case histories are reviewed, certain symptoms are found to occur with some regularity. Roughly in order of frequency these are:

1. Some change in bowel habits from a previously well established pattern. This is usually true regardless of how unorthodox the previous pattern may have been.

2. Pain. When even the vague abdominal discomfort so often mentioned is included, pain occurs in a high percentage of cases. The range of pain will vary a great deal with individuals, but aside from this, can range from mild discomfort localized more or less to one area of the abdomen on through mild intermittent cramps at infrequent intervals to the regular excruciating cramps of near complete or complete obstruction. Tenesmus, when present, is a discomfort severe enough to bring even the hardest to the physician.

3. Bleeding occurs often. The nature of the extruded blood varies somewhat with the location of the tumor. When it emanates from the right colon it most usually is not discernible to the patient, but may darken the stools evenly. The appearance of bright red or wine colored blood can occur with lesions well on the right side of the colon. It may appear first with a bout of diarrhea. Profound secondary anemia often occurs in such a situation and weakness with easy fatigability may be the issue of importance to the patient. Lower down in the colon, true passage of bright red or dark red blood may occur. At times a patient will observe that his stools have some blood on the outside and some inside. One usually need look no higher than the splenic flexure when this happens. Spurts of blood with defecation or just after defecation, or the coating of the stool with streaks of blood and mucus are sometimes seen when lesions actually lie well within the sigmoid colon but are more common in lower tumors. This last type of history certainly is common and many times is interpreted as a certain sign that the patient is suffering from hemorrhoids. Perhaps it would be better to assume that the diagnosis is that of carcinoma until the physician is thoroughly convinced that this is not the case. Youth of the patient should not detract from this attitude. Carcinoma of the rectum is found in people

under twenty years of age. Five percent of large bowel cancers appear in patients in the 30 to 40 age group and ten percent more in the 40 to 50 age group. The routine use of the stool guaiac test for occult blood cannot be praised too highly but it is unsatisfactory as a cancer screening technic. Actual data on the incidence of stool guaiac positivity in carcinoma of the colon are difficult to evaluate, but the finding of repeatedly guaiac positive stools, particularly when strongly positive, is certain evidence of some blood being present in the gastro-intestinal tract. This usually proves to be due to a carcinoma.

4. Weight loss is not always, but very often present. Usually it is not extreme, yet it is still not rare to see a patient who has distinctly used up his fat reserves and does not really become alarmed until his muscle masses begin to suffer. Associated anorexia is not closely related to weight loss except in far advanced cancer or where the fear of instigating abdominal discomfort has curtailed intake.

5. The presence of an abdominal mass is distinctly less common than the previous symptoms, but would seem to be a presenting complaint in five to ten percent of cases. As mentioned, this mass may prove eventually to be a less ominous finding than at first believed.

**Supplementary to the Foregoing Group** of symptoms, it would seem wise to consider symptomatology in relation to the location of the tumor. Carcinoma of the cecum is often a difficult diagnosis to prove, even when the physician believes it to be present. Frequently it is not given sufficient consideration. The maximal symptom complex one might expect from a cecal lesion would be weakness, pallor, dyspnea, especially when there has been previous heart disease, weight loss, a heavy feeling or actual cramp-like discomfort in the right lower quadrant, and an abnormal feel to the right lower abdomen. Diarrhea is more prone to occur

than is constipation. Even a large tumor of the cecum which involves the ileo-cecal valve may still allow unimpeded passage of liquid ileal contents into the colon. This passage may even be maintained by a fistula-like channel through the bulk of the tumor. Physical examination may reveal little, particularly in an obese person. In the female, uterine adnexa may be abnormal to the feel, at times suggesting a primary ovarian neoplasm. Persistently guaiac stools are ordinarily found if sought for and proctoscopic study will ordinarily not be remarkable. The finding of one or more polyps on proctoscopy would not, however, be a rarity. Barium enema study with fluoroscopy is all too often interpreted as normal. The colon generally requires an extraordinarily astute observer. The cecum and right colon in particular are difficult to study adequately by radiographic technics. Failure of an ileal leak of barium may be a significant finding. A rigid bowel pattern or frank intraluminal projections may be seen. It is probably wise to examine the upper intestinal tract radiologically in doubtful cases before further steps are taken. Where obstruction exists, of course, it is foolhardy to administer barium by mouth. At times, displacement of other loops of bowel can be detected on inspecting the radiographs. Intravenous pycelography may show poor or absent function on the right side and this with or without uretero-pelvic distention of the right kidney calls for further study. The simultaneous presence of nephro-ureteral disease with cecal carcinoma does not prove that the two are related. Upon occasion a cecal carcinoma is first discovered at the time of appendectomy. When this happens, the differentiation from an inflammatory process is not always easy and further therapy may require the interpretation of a well chosen biopsy and post-operative x-ray studies.

*(This presentation will be concluded in the next issue.)*

# The Topical Use of Antibiotics In Dermatology

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The present report is based on a study over the past ten months of Polysporin (polymyxin B-bacitracin) ointment and Chloromycetin cream (both in a petrolatum and water soluble base). The results in these cases are compared with those in a previous series of cases in which bacitracin ointment was used.<sup>1</sup> Seventy-two cases of pyogenic skin infections were treated with Polysporin ointment and ninety-seven with Chloromycetin cream.

The majority of these cases were the routine infected dermatoses seen in daily practice. Treatment consisted of the application of either Polysporin, an ointment containing 500 units of bacitracin and 10,000 units of Aerosporin per gram in a petrolatum base, or Chloromycetin cream containing ten mgms. per gram. In the cases of external otitis, Aerosporin solution containing ten thousand units per cc. was used as ear drops daily followed by Polysporin ointment at night.

**Usual Skin Infections** seen in office practice are caused by coagulase positive *Staphylococcus aureus* and hemolytic *Streptococcus*. Occasionally hemolytic *Staphylococcus albus* is cultured. Non-hemolytic *Staphylococci* have been cultured from pyogenic lesions and from the results of treatment may be pathogenic.<sup>2</sup> A pure culture of diphtheroids was cultured from an acute infectious lesion in

one case in the present series. On sensitivity tests the diphtheroids were most susceptible to aureomycin, penicillin and Chloromycetin and the case rapidly responded to the latter cream. *Pseudomonas aeruginosa* (*B. pyocyaneus*) is a common cause of external otitis,<sup>3, 4</sup> and is occasionally recovered in pure culture from skin lesions. *Pseudomonas* is not ordinarily pathogenic when present on the intact skin and not a highly invasive organism, but may under certain circumstances, such as lowered resistance of the tissue, become invasive.<sup>5</sup> Once established in a skin lesion, pseudomonas may produce a stubborn dermatitis that shows little tendency to heal, and will be completely resistant to usual chemotherapy. Septicemia and death have resulted from such pseudomonas skin infections. The antimicrobial agent most active against this organism is Aerosporin.<sup>5</sup>

Bacitracin, an antibiotic reported by Johnson, Anker and Meleney,<sup>6</sup> in 1945, is produced by a specific strain of *B. subtilis*. It is active in vitro chiefly against the gram-positive *Streptococci* and *Staphylococci*. The gonococcus, pneumococcus,

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spirochete of syphilis, diphtheria bacillus, and diphtheroids are also susceptible to its action. Its bacterial activity appears to be directly proportional to its concentration and it is not inhibited by the organisms that produce penicillinase.

Polymyxin is the generic term designating a series of related antibiotics that chemically are basic polypeptides, isolated from *Bacillus polymyxa*.<sup>7,8</sup> The various polymyxins isolated are differentiated by affixing letters of the alphabet, A, B, C, D, and E. Polymyxin B is the least toxic of those studied, and is bactericidal in vitro for most gram negative organisms, *E. coli*, *Shigella*, *Pseudomonas aeruginosa* (*B. pyocyaneus*), *Klebsiella pneumoniae*, and *Hemophilus influenzae* are sensitive to Polymyxin B. Polymyxin B sulfate, when given parenterally, may produce neurotoxic or nephrotoxic effects, but so little is absorbed from the skin or mucous membranes as to make even prolonged topical administration quite safe.<sup>9</sup> However, the impression of the toxicity of Polymyxin B would appear to be merely a carryover from the toxic effects that were witnessed in the early stages in the use of Polymyxin D.

About sixty percent of the present series were hand cases, and cultures revealed coagulase positive hemolytic *Staphylococcus aureus* to be the pathogen in most cases. Two cases of infectious eczematoid dermatitis of the fingers revealed pure cultures of *Pseudomonas aeruginosa*. Non-hemolytic staphylococci were cultured in four pyogenic hand cases, and diphtheroids in one. Bacterial cultures from the cases of external otitis revealed hemolytic streptococci or *Pseudomonas aeruginosa* or mixed cultures of these two organisms in addition to diphtheroids and occasionally *Staphylococcus aureus*. Hemolytic streptococci were cultured from most of the cases of impetigo, although *Staphylococcus aureus* was represented.

**Sensitivity Tests** by plating provided illuminating information. The organ-

isms cultured from each case were tested against bacitracin, aureomycin, terramycin, Chloromycetin, streptomycin, penicillin, and Polymyxin B. The streptococci were highly susceptible to all except to Polymyxin B. However, *Staphylococcus aureus* proved highly resistant to many of the new antibiotics. In this series all staphylococci were highly susceptible to bacitracin and aureomycin. Both of these averaged over 7 mm. of clearing in sensitivity tests. Terramycin averaged 4 mm. of clearing and Chloromycetin and streptomycin averaged only 2 mm. of clearing. Penicillin was a disappointment with most staphylococci being completely resistant to penicillin. The few staphylococci that were susceptible to penicillin were highly susceptible and in these penicillin equalled bacitracin in effectiveness. The results of these sensitivity tests differ with those of Rattner and Rodin, who found both streptococci and staphylococci highly sensitive to penicillin.<sup>2</sup> However, a significant number of staphylococci were resistant to both penicillin and Neomycin in their series. It is realized that the zone of inhibition is not necessarily an absolute index of the relative sensitivity of the organism to the various antibiotics since this is partly a factor of diffusion of the antibiotic through the media. Polymyxin B is known to diffuse very slowly through the culture media. It is very possible that streptomycin, terramycin, and Chloromycetin diffuse slowly through the culture media also, as these antibiotics consistently had very small zones of clearing.

**Results Of Treatment** of the seventy-two patients treated with Polysporin, thirty-one had primary infections and forty-one had secondarily infected dermatoses.

Of the eighty-three patients treated with bacitracin, forty-six had primary infections, and thirty-seven secondarily infected dermatoses.

Of the ninety-seven patients treated with Chloromycetin cream, twenty-nine had

primary infections and sixty-eight had secondarily infected dermatoses.

Thirty-nine patients or 54.2% of the group treated with Polysporin ointment were cured completely, and an additional sixteen cases or 22.2% were markedly improved. This figure may appear low but from checking Table 2 it is obvious that the large number of secondarily infected dermatoses included in this series would keep the percentage down. In these cases the infectious element would be eliminated but the underlying dermatosis would remain, although considerably improved in many cases.

Fifteen cases of contact dermatitis with secondary infection are included and only two of these cases were considered cured. The Polysporin ointment would clear the infection but obviously would not affect the underlying dermatitis or eliminate the contact. Two were caused by *Pseudomonas aeruginosa*, and both rapidly re-

sponded to Polysporin and were considered cured. One of these involved the right middle, ring and little fingers, of three months duration, and had resisted all topical therapy. Following the culture report, Polysporin was applied and the extensive dermatitis improved markedly in the first forty-eight hours and was clear in two weeks.

In the cases of external otitis, the discharge would cease within twenty-four to forty-eight hours as either the streptococci or pseudomonas were highly susceptible to either the bacitracin or polymyxin. Recurrences occur in external otitis and in many there may be an underlying seborrheic dermatitis, neurodermatitis, or possibly psoriasis of the external canals.

Of the eighty-three cases treated with bacitracin ointment, 61.5% were cured completely and 30.1% were markedly improved. However, from an examination

TABLE 1

POLYSPORIN TOPICAL THERAPY: RESULTS IN 72 CASES							
Condition	Classified Cases	Cured	Marked Improvement	Improved	Failed	Minimum and Maximum Days Required For Cure	Average Days Required for Cure
<b>Primary Infections</b>							
Furfureaceous Impetigo	1	1	—	—	—	8	—
Impetigo	13	13	—	—	—	3-14	7
Impetigo Rodens	1	1	—	—	—	14	—
External Otitis	5	5	—	—	—	7-9	8
Pustular Acne	1	—	—	1	—	7	—
Pyoderma	5	3	1	—	1	10-14	12
Sycosis Vulgaris	4	2	2	—	—	9-14	12
Folliculitis	1	1	—	—	—	—	—
<b>Secondarily Infected Dermatoses</b>							
Dermatitis Venenata	15	2	4	5	4	7-21	—
Infectious Eczematoid Dermatitis	23	11	6	5	1	6-60	14
Leg Ulcers due to Stasis or Trauma	3	—	3	—	—	10	—
<b>Totals</b>	<b>72</b>	<b>39</b>	<b>16</b>	<b>11</b>	<b>6</b>		
<b>Percentage of Totals</b>		<b>54.2</b>	<b>22.2</b>	<b>15.3</b>	<b>8.3</b>		

of Table 2 it is obvious that a larger percentage of primary infections are reported in this group, plus the fact that only four cases of contact dermatitis with secondary infection are included. As mentioned previously, the antibiotic will usually only cure the secondarily infected element of the original dermatitis.

Chloromycetin cream was used in ninety-seven cases of pyogenic dermatosis and in this series 9.3% were cured and 21.6% were markedly improved. From an examination of Table 3 the reason for such a low percentage is apparent—as sixty-eight of these patients had secondarily infected dermatoses. A second obvious reason for this low percentage is the resistance of most of the staphylo-

cocci found in these hand cases to Chloromycetin as indicated in the sensitivity tests. However, Chloromycetin in a water miscible base has definite advantages over a petrolatum base in most acute cases.

**Reactions** allergic eczematous contact type reactions were observed in one case due to Polysporin ointment, one due to bacitracin ointment, and two due to Chloromycetin cream. In the case due to Polysporin ointment, patch testing with the bacitracin, Aerosporin and ointment base revealed the sensitivity to have been caused by bacitracin. This patient had never been exposed to bacitracin or Aerosporin before and developed her acute sensitization within twelve hours of the application of the ointment. She had used

TABLE 2

BACITRACIN TOPICAL THERAPY: RESULTS IN 83 CASES							
Condition	Classified Cases	Cured	Marked Improvement	Improved	Failed	Minimum and Maximum Days Required for Cure	Average Days Required for Cure
<b>Primary Infections</b>							
Impetigo	12	12	—	—	—	4-10	7
Impetigo Rodens	4	4	—	—	—	14-21	17
Furunculaceous Impetigo	1	1	—	—	—	7	—
External Otitis	5	5	4	—	—	7-21	9
Pyoderma	12	6	2	1	1	7-14	12
Sycosis Vulgaris	4	2	—	—	—	6-14	6
Folliculitis	6	5	—	—	1	6-14	11
Acrodermatitis Continua	1	1	—	—	—	7	—
Recurrent Boils	1	1	—	—	—	56	—
<b>Secondarily Infected Dermatoses</b>							
Dermatitis Venenata	4	3	—	1	—	7-14	—
Infectious Eczematoid Dermatitis	19	7	12	—	—	3-14	7
Seborrheic Dermatitis	4	—	1	3	—	7-14	—
Ischiorectal Abscess	1	1	—	—	—	90	—
Psoriasis	1	1	—	—	—	14	—
Ulcer (Buttock)	1	1	—	—	—	49	—
Varicose and Traumatic Ulcers	4	1	3	—	—	4-7	—
Pustular Acne	2	—	2	—	—	6-6	—
Cystic Pustular Acne	1	—	1	—	—	3	—
<b>Totals</b>	<b>83</b>	<b>51</b>	<b>25</b>	<b>5</b>	<b>2</b>		
<b>Percentage of Totals</b>		<b>61.5</b>	<b>30.1</b>	<b>6.0</b>	<b>2.4</b>		

Chloromycetin and Aerosporin in the past. In much smaller groups of cases aureomycin, terramycin and streptomycin were used in ointment form in similar dermatoses. One or more acute, allergic, eczematous, contact-type reactions were seen to each of these ointments.

### Summary

Both bacitracin and Polysporin ointments produced excellent results in the treatment of the usual pyogenic dermatoses seen in routine dermatologic office practice. Almost all cases of primary bacterial infections of the skin were completely and rapidly cured with these two ointments. In the secondarily infected dermatoses the infection rapidly disappeared.

Because of the combination of Polymyxin B and bacitracin I feel that Polysporin ointment is preferable as it is

highly effective against not only staphylococci and streptococci, but also *Pseudomonas aeruginosa*. Sensitization to both bacitracin and Aerosporin is minimal and compares favorably with any of the antibiotic ointments in present day use. Because of the occasional *Pseudomonas aeruginosa* skin infections encountered in office practice I feel that the combination of bacitracin and Aerosporin is preferable to bacitracin alone. Furthermore, when the bacteriology of external otitis is also considered, in which the incidence of pseudomonas increases markedly, the combination of bacitracin and Aerosporin as found in Polysporin becomes the obvious application of choice.

Of increasing importance is the fact that the use of either bacitracin or Aerosporin, which are less extensively used parenterally, avoids possible sensitization to the broad spectrum antibiotics such as aureomycin, terramycin, penicillin, streptomycin—thus permitting use of these in case of serious systemic infection.

TABLE 3

CHLOROMYCETIN TOPICAL THERAPY: RESULTS IN 97 CASES							
Condition	Classified Cases	Cured	Marked Improvement	Improved	Failed	Minimum and Maximum Days Required for Cure	Average Days Required for Cure
<b>Primary Infections</b>							
Impetigo	5	5	—	—	—	7	7
Bullous Impetigo	1	—	—	—	—	14	—
Impetigo Redens	1	—	1	—	—	14	—
Pyoderma	14	2	3	3	6	3-14	11
Sycosis Barbae	3	—	1	2	—	7-14	9
Streptococcal Dermatitis	3	—	1	2	—	7-30	16
Folliculitis	2	—	1	1	—	14	—
<b>Secondarily Infected Dermatoses</b>							
Atopic Eczema	2	—	1	1	—	14	—
Dermatitis Venenata	27	1	5	5	16	3-15	8
Infectious Eczematoid Dermatitis	33	1	3	10	19	6-20	9
Eczematoid Dermatitis (Legs)	2	—	1	—	1	7	—
Leg Ulcer	2	—	1	—	1	14	—
Nasal Ulcer	1	—	1	—	—	14	—
Postular Acne	1	—	1	—	—	7	—
Totals	97	9	21	24	43		
Percentage of Totals		9.3	21.6	24.2	44.3		

With the use of bacitracin or Aerosporin the patients are less frequently sensitized and bacterial resistance is less frequently precipitated.

However, in the treatment of secondarily infected dermatoses, Polysporin would find wider application in a greaseless ointment base, as the present petrolatum base of itself will aggravate many acute eczematous, infectious dermatitis cases. Such a greaseless base may be prepared at the time of use and the less stable bacitracin would remain stable and effective for relatively short periods of time. However, such a fourteen day period would suffice to control and eliminate the secondary infection.

Chloromycetin cream produced fair results but these were not comparable with those obtained with Polysporin or bacitracin.

Aureomycin, terramycin and streptomycin ointments produced excellent results in selected cases over this period, but over-all results were inferior to Polysporin. In this series sensitivity tests

supported the clinical impression that Polysporin was the most effective antibiotic. Yeasts and molds were not encountered as secondary invaders following antibiotic therapy.

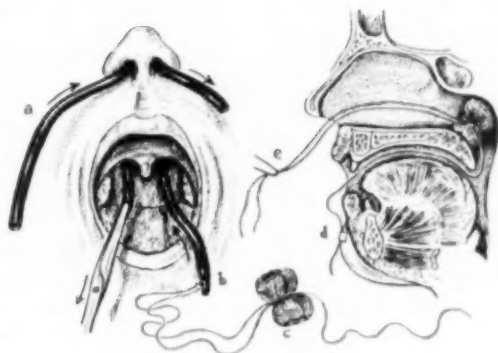
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## Clini-Clipping



Method of placing a posterior nasal pack in the treatment of epistaxis. a. Pull small catheter out of mouth; b. Catheter with pack tied with double silk suture; c. Pack tied with double and single suture; d. Adhesive holding single suture in place; e. Double sutures ready to be held in place by adhesive.

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# We Should Treat Alcoholism

R. G. McALLISTER, M.D.  
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**One and One-Half Billion Dollars a Year!** That astounding figure represents the estimated cost of untreated alcoholism in the United States today—in loss of wages, accidents, crime, and the cost of institutional care and support of family groups. An attempt to assess the cost of alcoholism in terms of social and personal values would reveal an even more disturbing sum.

Financial statistics cannot begin to bring home the widespread tragic effect of this condition. As practitioners, we can see how one sick alcoholic may produce an entirely disjointed and sick family.

Take, for example, the child of a frequently indulgent alcoholic, brought up in an atmosphere of uncertainty and insecurity, of unhappiness and disagreement, even of divorce. His chance for adequate adjustment as an adult is seriously jeopardized. Or, again, how often is a tension-state in a woman actually a reflection of her uncertainty in not knowing just when her husband will upset her world by a drinking episode? Frequently the functional ills of many of our patients could be helped more by treating the causative alcoholic than by prescribing barbiturates and advising them "not to worry."

And where, better than by the family physician, may alcoholism be recognized and treated? Certainly we have a duty which is, all too frequently, purposely ignored.

Much is being said these days about our personal role in the public relations of the medical profession. Much is being written in the lay press about alcoholism being a disease. The public may rightly ask: "If alcoholism is an illness, why will not my doctor treat it?"

There are a number of reasons why too many physicians refuse to treat, or prefer to ignore, alcoholism.

First, there is a general lack of understanding by the profession. To most non-alcoholics—including doctors—an alcoholic drinks when he should know better; the responsibility is his alone and he should face the consequences. His condition is entirely self-induced, so why (the busy doctor reasons) should he not wash his own dirty linen? Furthermore, the average physician pictures the alcoholic as loud, abusive, reeling, and thoroughly unpleasant to treat. The mention of the word "alcoholic" is a bit disgusting to him, and frankly, he does not want to get involved in the situation or treat the condition.

Another reason many doctors shy away from treating the alcoholic is the tendency to recurrence. The physician might well recall having tried to help previously, and not seeing any permanent benefit resulting from his efforts, conclude further treatment a waste of time.

Frequently the physician believes that alcoholism is entirely in the field of the psychiatrist; he feels that he lacks the

time to explore the many causes of the man's drinking, and therefore will be unable to help. The literature is so voluminous in discussion of this or that concept of the problem that the average doctor might believe it is beyond his capacity.

Surely the alcoholic *is* disturbed emotionally and mentally when he is drinking, but it is my belief that not over 10 per cent are really in need of special psychiatric care. The psychiatrist, although interested in the genuinely disturbed, is not excited by the simple alcoholic who becomes normal when sober. Both then agree that specialized treatment may not be necessary or financially prudent, and our alcoholic is discharged to become disillusioned about the medical profession in general. This is probably the reason for the antipathy many alcoholics direct toward the psychiatrist.

Treatment of 90 per cent of alcoholics is well within the scope of the general practitioner. And almost dramatic results can be obtained in a gratifying percentage with a simple, logical and safe treatment. Although one occasionally sees a rowdy and disagreeable alcoholic, the treatment most frequently is pleasant. As a group, alcoholics are above the average in ability and intelligence; as an improved patient, both he and his family are grateful beyond any others.

**Now to the Treatment** As a general practitioner, I have found that the use of Adrenal Cortex Extract (ACE), combined with Vitamin C and also Vitamin B Complex, can produce almost dramatic results in the sick alcoholic who wants relief.

There is a point: he must *want* relief. A sincere desire for help by the patient himself is an absolute necessity. A wish by the wife or husband or even a helpful friend will not suffice. Without the determination of the patient to cooperate, any out-patient treatment is without effect, for further alcohol will nullify action by the hormone.

Optimally, as when a patient is confined in a hospital, an injection given every six hours is much more effective than that possible by the busy practitioner outside. Actually, it is usually not necessary to give more than one, or possibly two, injections a day until the patient is under control. Frequently he can make it to the office the second day, for by that time he has noted definite relief and is cooperative and eager for further treatment.

I usually continue the intravenous injection of 2 cc. of ACE, combined with 500 mg. of Vitamin C and 1 cc. of a strong B Complex solution, daily, until the pulse and blood-pressure approach an expected normal, the tremor is gone, the patient is smiling about his "best night's sleep in two months" and complaining about how much and how often he eats. This may be two, or as long as five or six days, but there is such a definite change in outlook and mien and physical condition that this phase is easy to recognize.

From this time on, he comes by the office at his convenience, at first daily, then every two days, then three, then weekly, and so on, for an injection of  $\frac{1}{2}$  cc. of Lipo-Adrenal Cortex—a more lasting and potent solution of the hormone. This, with only an occasional medical check-up, can be given by the nurse, and the patient soon learns to recognize when he needs an injection. Later, as he becomes more rehabilitated and adjusted, he is put on a monthly regimen, but always told to come in for treatment when he feels a tension-state or craving of any kind appearing.

Other medication should be used with the hormone. Mephnesin, in doses of one gram every two hours, is most helpful for the general tension and tremor, especially for the first three or four days of withdrawal of alcohol. Potent preparations of Vitamin C and Vitamin B Complex are given orally from the first. Opiates are

unnecessary and dangerous, and should never be administered. Mild sedatives are usually sufficient, such as Dormison or chloral hydrate in moderate doses; rarely paraldehyde may be necessary at first. The patient is usually told that, since alcohol is basically a sedative, he probably will not sleep too well the first night, but may expect to be more calm and relieved than previously; this usually helps thwart his desire for "something to knock me out."

After a week of the Vitamins C and B Complex, he is put on a complete vitamin-mineral preparation in as large doses as he will tolerate, usually one or two t.i.d., and this should be maintained indefinitely.

**Antabuse** certainly has a place in the treatment of alcoholism, but not, in my opinion, the important one usually accorded it. First, it is not without danger, and there have been fatalities as a result of alcohol taken after its use. Second, it has no effect on eliminating the tension-state or actual physical urge to drink, which I believe frequently leads to the alcoholic state. It is, in effect, a club which the patient voluntarily holds over his own head, ready to crash downward at the slightest "slip." However, there are many patients benefited by its use, and I find it valuable in certain selected cases, particularly after a period of rehabilitation.

A most important part of the treatment is the understanding, sympathetic and concerned interest of the physician, and his continued encouragement. Any obvious precipitating factors of the alcoholic state should be eliminated, if possible, but an involved psychiatric work-up is not indicated unless the patient is continually disturbed. The same family-doctor approach that applies to other diseases works with the alcoholic.

The person whose life has been enveloped by alcohol will not be successful in complete rehabilitation by simply eliminating the alcohol. He must, of necessity, fill the void with something at least as

strong and as consuming. Active participation in Alcoholics Anonymous most frequently does this rapidly and successfully. Through an understanding of his problem and through fellowship with others who have been over the same road, he can find a program which can direct him toward a definite rehabilitation. Resuming activity in his church, from which his alcohol has separated him, will often re-establish his self-respect and give him needed spiritual aid.

An understanding of his problem by his wife and family can be a most important factor in the patient's recovery. Explanation to them and elicitation of their active cooperation should not be overlooked.

## Summary

What can the practitioner and patient expect from this treatment, combined, of course, with other accepted measures?

First: no adverse effects. It is completely safe.

In a series of 265 consecutive episodes, excellent immediate results were obtained in 199, or 75 per cent. With better selection, particularly as far as the patient's desire to cooperate is concerned, a larger percentage is now in the excellent column. In the acute alcoholic state, the patient may expect rapid ability to eat, diminution in the nervousness and tension which inevitably follow a binge, and even a slight euphoria rather than the depression produced by alcohol. Most frequent enthusiastic report by the patient is relief from the physical craving for alcohol, of which he often was not even conscious prior to treatment.

Best of all, this treatment offers hope to a sick and beaten individual, and a chance for eventual rehabilitation and reestablishment of a normal, happy life.

It is a most gratifying experience to have a part in helping an individual in overcoming so tragic a condition.

With such a safe and comparatively simple treatment available, is it not time we physicians opened our eyes to a widespread need and faced alcoholism as the disease it really is?

1016 W. Franklin Street

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# Wound Disruption —

## Questions and Answers

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**Q.** What do you mean by "wound disruption"?

**A.** Any separation of the anterior muscle fascia or any layer deep to it. Separation of the skin or subcutaneous tissues is not necessary for disruption to occur. Also evisceration or extrusion of a viscus is a type of disruption but all disruptions are not eviscerations.

**Q.** How often does wound disruption occur?

**A.** Wound disruption occurs in 0.5 to 3% of patients undergoing major surgery. The incidence of wound disruption reported in various series depends upon the alertness and honesty of the house staff and also upon the type of hospital from which the report comes. Thus, wound disruptions are more common in charity hospitals where the nutritional status of the patient is much lower.

**Q.** In how many cases of wound disruption does evisceration actually occur?

**A.** In about 65% of cases of wound disruption evisceration occurs. It is in the other 35%, in which no bowel is visible, that it behooves the surgeon to be alert to the presence of a disruption and the impending danger of evisceration with the risk of peritonitis and shock.

**Q.** You speak of wound disruption as a serious complication; does it have a high mortality rate?

**A.** Yes, in large series the mortality rate following wound disruption is about 35%. Most deaths, however, are not due to the disruption but to associated complications that are present at the same time. Thus, wound disruption occurs more frequently in the chronically ill patient, and in the patient with pneumonia, or atelectasis, or peritonitis. Peritonitis, as a sequela of disruption, is much less frequent than formerly, although disruption still occurs as a complication of peritonitis.

**Q.** When does wound disruption occur?

**A.** Wound disruption may occur at any time from the time the skin is closed on the operating table until the wound is completely healed two to three weeks postoperatively. The usual time of occurrence, however, is about five to eight days postoperatively.

**Q.** The diagnosis of wound disruption is fairly obvious, is it not?

**A.** Disruptions may be easy to diagnose or may be extremely difficult to diagnose. Early diagnosis, before the findings are obvious, is very important in the prevention of evisceration and fatalities.

**Q.** How can I diagnose wound disruptions early?

**A.** The most important single diagnostic feature of early wound disruption is *profuse sero-sanguineous drainage from*

a clean wound. This finding is almost pathognomonic of wound disruption. In all cases in which profuse drainage occurs, and in which there is no other explanation such as a fistula, one should assume that a disruption has occurred until proven otherwise. Also the presence of abdominal distention, abnormal wound pain, obvious peritonitis or chronic cough or hiccough should alert the surgeon to the imminent threat of wound disruption and he should observe the wound carefully.

**Q.** Isn't there some danger in dressing wounds too often?

**A.** The danger of dressing wounds too often is far less than the danger of allowing wound infection or disruption to go unrecognized for several days. When there is any question about the condition of a wound, such as occurs with unexplained fever or pain, the surgeon should immediately dress the wound without delay and examine it carefully. Meddlesome probing is to be condemned, however, unless there is some evidence of a pocket or a fluctuant mass beneath the skin.

**Q.** What are the main factors causing wound disruptions?

**A.** I can best answer this question in an outline form:

1. Systemic Factors
  - A. Hypoproteinemia
  - B. Anemia
  - C. Vitamin Deficiency
2. Type of Incision
3. Technique of Wound Closure
  - A. Accurate approximation of peritoneum
  - B. Tight sutures necrose tissues
  - C. Bringing viscus through wound (ostomy)
4. Increased Intra-abdominal Pressure
  - A. Abdominal Distension
  - B. Coughing
  - C. Hiccoughing
  - D. Vomiting

**Q.** You mention three systemic factors. Just what role do they play in disruption?

**A.** Hypoproteinemia is an important and obvious factor in failure of wound healing. This occurs in patients with advanced malignancy or in patients who are cachectic due to nutritional problems. Anemia is probably not a factor in many cases. Vitamin deficiency is not very important except as a contributing factor in cases of nutritional deficiency.

**Q.** Just what role does the type of incision play in wound disruptions?

**A.** The use of transverse or oblique incisions has been advocated as producing fewer cases of wound disruption than vertical incisions. The evidence is not, however, conclusive. The enthusiasts for transverse incisions have reported small incidences of disruption in these wounds, whereas, the enthusiasts for vertical incisions have had no higher relative incidence. It is important to realize that in statistical studies, such as are presented as evidence in this argument, one is interested in the *relative incidence* and not the total incidence. There are many advantages to transverse incisions and they are excellent in many situations, but their use will not eliminate disruptions.

**Q.** Is there any difference in the incidence of the wound disruption in upper abdominal surgery and lower abdominal surgery?

**A.** There certainly is. Many more cases of wound disruption occur in the upper abdomen than in the lower abdomen. This is probably due to two factors:

1. Most cases of upper abdominal surgery involve the gastro-intestinal tract and distension is more common.
2. The upper abdomen is under the stress of respiratory activity and coughing and straining, whereas the lower abdomen is relatively free from these stresses and strains.

**Q.** The technique of wound closure is obviously important to most people but I am not sure that I know what type of suture material to use.

**A.** It makes no difference whether one uses absorbable catgut sutures or non-absorbable sutures of silk, cotton, or wire. The only important factor is that the suture be used properly and accurate layer closure be performed and that the sutures are not placed too tightly. I would emphasize that at no time during an operation is good anesthesia as important as in the closure of the wound. We too frequently see the anesthetist rush the surgeon and relax his anesthesia with resultant difficulty in producing accurate closure. Here is one place where the surgeon must insist upon good relaxation regardless of any other factor. If the patient's condition is so precarious that relaxation is impossible or hazardous then I would suggest heavy retention sutures applied fairly close together to obviate the risk of disruption.

**Q.** Wound infection is an obvious factor in breakdown of wounds, but how can one prevent disruption from occurring once infection has occurred?

**A.** The prophylaxis of wound infection is obvious to all. The careful preparation of the skin, avoiding probing of the wound with unclean instruments, or in a careless manner. Once infection has occurred, early diagnosis is all important. If one will open the skin and subcutaneous tissues widely, to allow for free drainage, the fascia and peritoneum will usually remain intact and no disruption will occur.

**Q.** How does increased intra-abdominal pressure produce disruption?

**A.** The straining or internal pressure tends to make the wound separate. This is true whether the wound is vertical or transverse in spite of claims to the contrary. In addition, distended intestines

and the omentum tend to work their way into a small opening in the peritoneum and serve as a wedge, gradually opening more and more of the deeper layers of the wound.

**Q.** How then can I prevent wound disruption from occurring in my patient?

**A.** Wound disruptions are preventable in the majority of cases, although every honest surgeon will admit that this complication occurs in some of his cases. The following 6 points are all important in the prevention of wound disruptions:

1. Adequate anesthesia.
2. Proper wound closure.
3. Nasogastric suction.
4. Early ambulation.
5. Bronchopulmonary stir-up routine.
6. Replacement of protein and vitamin deficiencies.

**Q.** You emphasize anesthesia as being very important in prevention of disruption, how can I help my anesthetist to give me good anesthesia?

**A.** Give the anesthetist time. It is important to warn the anesthetist in advance that you are ready to close the abdomen so that he can place the patient in a deeper plane of anesthesia for the closure. The use of an endotracheal tube is valuable in many cases. But above all, don't be bashful in insisting on good relaxation. The anesthetist is only going to give you as much anesthesia as you require, and in closure relaxation makes for safety and for greater speed of closure.

**Q.** By proper wound closure, do you mean the use of heavy suture materials and routine use of retention sutures or not?

**A.** No, heavy sutures are not important. It is indeed unnecessary to place double strands of heavy catgut in a thin layer of peritoneum. Sutures only need to be as strong as the tissue in which they are placed. Accurate approximation of layers

is important. In cases where distension or cough or peritonitis are anticipated, through and through retention sutures, through all layers with heavy suture material, are valuable.

**Q.** Why do you use heavy material for your retention sutures?

**A.** Heavy suture material is used because it must carry a large stress load if it goes through peritoneum, fascia, muscle and skin. Also heavy suture materials do not cut or burrow through the skin and subcutaneous tissues and thus produce less discomfort.

**Q.** You mention nasogastric suction. When should this be used?

**A.** Simple continuous gastric aspiration with a Levin Tube and Wangenstein suction apparatus is very valuable and it should be used often and early. This procedure should not be reserved for cases of bowel obstruction but should also be used in patients in whom the surgeon anticipates abdominal distension and ileus. Once distension has occurred, nasogastric suction is not nearly as effective as when used early in prevention.

**Q.** By early ambulation, do you mean sitting the patient on side of the bed?

**A.** No, early ambulation implies having the patient arise from the bed fairly promptly after surgery, usually within 24 hours, and walk around the room. This produces fewer respiratory difficulties and less abdominal distension.

**Q.** What do you mean by "Bronchopulmonary stir-up routine"?

**A.** This is a routine which is used by many surgeons and is quite valuable in the prevention of postoperative pulmonary complications. This routine should begin as soon as the patient is responding from the anesthetic and not 6 to 8 hours later. The patient should be turned and encouraged to cough as often as possible. Care-

ful instructions to the nursing staff are important. The patient should sit up within 12 hours after surgery unless there is some very real contraindication such as profound shock. If there is much mucus or cough present, tracheal aspiration should be done promptly and as often as necessary.

**Q.** What do you mean by tracheal aspiration? I always thought this required a chest specialist.

**A.** No, tracheal aspiration is a valuable and yet simple procedure which can be performed with the patient sitting on the side of the bed and requires no special training or equipment. Merely have the patient sit on the side of the bed and have an assistant stand behind the patient and support his wound with both hands. Grasp the tongue with a dry sponge and pull out firmly. Attach a soft rubber catheter, 10 to 12 inches in length, to a suction pump and insert this catheter over the base of the tongue. By manipulating the catheter one can usually insert it into the trachea. This stimulates vigorous coughing and it is probably the coughing more than the actual suction that produces the desired results. Not infrequently, following surgery, there will be a sharp rise in temperature, respiration and pulse. Following tracheal aspiration, 1 or 2 thick plugs of brown mucus will be expectorated and the patient's temperature will promptly fall to normal and his general condition will improve markedly. If these plugs are left in the small bronchi for 12 to 24 hours it then becomes impossible to remove them and atelectasis and secondary pneumonia are inevitable.

**Q.** The treatment of wound disruption should be rather easy then. I guess one should immediately close all wounds that break open?

**A.** No, this is not necessarily true, and in many cases immediate closure is contraindicated. The majority of patients that

disrupt are seriously ill and do not stand immediate secondary closure well. If the skin and the subcutaneous tissues are intact and there is no large defect in the fascia, it is best to treat these patients conservatively and perform the repair at a later date. The repair may be performed within a week or two, after the patient is in better condition, or it may be performed months or years later if desired.

**Q.** What should one do then to prevent evisceration in such a case?

**A.** The most important thing is the removal of the factors which produced the disruption. Usually this entails nasogastric suction or treatment of a cough. Nasogastric suction is valuable and should be used in all cases of disruption. Sedation with opiates and barbiturates is important, particularly in the early stages. Absolute bedrest is imperative. The treatment of cough is with the usual anodynes and steam. Tracheal aspiration is indicated if necessary and even bronchoscopy if warranted. Aerosol penicillin is valuable in the reduction of cough in these patients. Wound strapping is valuable in early cases. Strap the wound with long tapes from back to back and strap it thoroughly.

**Q.** How should one close the wound if secondary closure is anticipated?

**A.** The most important factor in secondary closure is adequate anesthesia. Local or regional anesthesia is poor in most cases and should only be used in the critically ill patient which disrupts and in which evisceration has occurred. Accurate layer closure is the best if the layers are distinct and strong enough. Through and through retention sutures closely placed are excellent. One should use heavy wire, heavy silk and worm gut or heavy dermal. Heavy silk or heavy cotton suture material may be used but causes a little more distress. The retention sutures should be left in place for approximately 2 weeks.

### Summary

Most cases of wound disruption are preventable. Sero-sanguineous drainage from a clean closed wound almost always indicates early disruption. Many cases do not require secondary closure as an emergency procedure, but this can be delayed indefinitely. In such cases one must warn the patient and the family that postoperative hernia is likely to occur and will require repair at a later date. Wangensteen suction and broncho-pulmonary stir-up routine are most important in the prevention and treatment of wound disruption.

720 Medical Arts Building

### Clini-Clipping



Method of recording the venous pulse. The suction cup is applied over the jugular bulb on the right side of the neck.

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# The Art of Medicine 1953

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In common with my contemporaries, I remember fondly—and perhaps reverently—the anecdotes so frequently related to medical students and interns during ward rounds in reference to the keen powers of observation common to the old masters of our profession. There was always the old master who walked into the room inhabited by the patient, sniffed—and made the diagnosis of typhoid fever or of diphtheria by the characteristic odor. No matter who relates the anecdote, and no matter how over-simplified it may be there is always the same moral to the story. However, it is only now, after years of maturation in my profession, that the true point of these anecdotes has become obvious to me. Even after granting that I have been very probably more naive and less circumspect than the average medical student, intern or resident seems to be today (although to belie this deprecatory analysis of myself I must confess that while still an intern I made the cogent analysis to this effect: “No one knows as much as an intern—not even an intern”), it might be worth the effort to discuss this point a bit—since it is so intimately related to most of the ills from which our profession suffers today.

Until recently it seemed to me that most of these stories about the masters indicated that if one studied hard and applied one-

self diligently one might one day assume such stature that the diagnosis of rare and exotic disease states would become child's play and commonplace. As a physician I am presupposed to be a trained observer. In observing my fellow physicians I believe I have commonly detected in many a reflection of this same belief, in their preoccupation with the rare and unusual diagnosis. There seems to be a constant ambition to impress one's associates by being THE ONE who made the diagnosis of Hand-Christian-Schüller Syndrome when the rest were stumped.

This over-emphasis on the unusual is perhaps natural but wrong. The rare diagnoses in medicine compose only a small percentage of the cases seen by the average physician. It is my belief that it is time we brought the art of medicine up-to-date—by appreciating and reverting to the accomplishment of the masters of past generations heralded in the ward round anecdotes: thorough observation of the patient.

To thoroughly observe one's patient, one need not back-track several generations by dissociating one's self from the assistance afforded by the laboratory. The strides made by the associated sciences are too valuable to be foresworn. It is only when attention becomes focussed on *them* rather than on the patient that

the situation deteriorates.

### **Every Doctor is Busy Today**

Every doctor is rushed almost beyond endurance. Every doctor today is a financial success. These are signs of our times. With this background it is ridiculously easy to spend less and less time with a patient, to adopt a production-line technique of taking a sketchy history, doing a sketchy examination limited to the region probably at fault—or to skip any examination entirely until the time should become available at some later, if ephemeral, time. A plethora of laboratory studies and x-ray studies takes only a few moments and practically no thought to order (although they will probably cost the patient a small fortune) and, after all, something *may* show up.

If the patient is admitted to a hospital there are numerous advantages that accrue: first, the intern or resident will at least examine the patient and will record their findings on the patient's chart; second, the intern or resident may make the diagnosis; third, it is much easier to make rounds in a hospital than it is to make five, ten or twenty home calls—also it impresses the patient when one enters the room not alone but attended by an obviously respectful retinue. The equally obvious disadvantages to wholesale hospital admissions are of importance primarily to the patient and are frequently summarily disregarded: first, although almost everyone today has hospitalization insurance, a hospital stay with its attendant voluminous studies may still be an expensive proposition for the patient with insurance—and a crippling financial experience for the one who is not insured; second, with everybody being hospitalized there just are not enough hospital beds or nurses for patients who truly require hospitalization.

It is not my intention to be fitted with a halo while I tell what is wrong with practically everyone else in my profession. I too am busy and harried; I know I am guilty of my share of errors of omission

and commission. However, one can learn from one's mistakes—and the wisest of us can learn from the mistakes of others. It is in this spirit that the following cases are described, since they demonstrate weaknesses common to many of us.

I was called recently to attend an eighty-year-old matriarch who was blind and crochety—but who had suffered left lower quadrant abdominal cramps and diarrhea for three days. The doctor who had attended her the three days of her illness made the diagnosis of "intestinal flu". He had prescribed some tablets which a call to the pharmacist revealed to be a commonly prescribed tablet compounded for the treatment of nausea and vomiting of pregnancy. (I have been positive all along that he knew she was not pregnant—but this therapeutic reasoning escapes me.) My examination was thorough—and it disclosed the existence of a strangulated left femoral hernia. Two hours later, after surgical intervention, the complaints disappeared and the patient made an uneventful recovery and was able to return home and make life miserable for her family for another two years. A little more time with the patient, a little more time spent in the examination and the patient would have been spared three days of excruciating suffering—while the attending physician would have been spared an embarrassing situation.

A fifty-four-year old woman had similarly been treated for "intestinal flu" (strange how I have inherently abhorred and distrusted this diagnosis all my professional life) for six weeks. *For six weeks she had had bloody diarrhea.* A finger in the rectum made the diagnosis—carcinoma of the rectum. It proved inoperable and she died after suffering another month. Who knows whether it was inoperable six weeks earlier?

By a strange coincidence both of these patients had been under the care of the same doctor before I saw them. He has a tremendously remunerative practice. On

the hospital staff he is classified as a General Practitioner. After hearing him in conversation at various meetings I realize that he evaluates himself a little differently—namely as a General Specialist. He is convinced that he does a tonsillectomy as well as any ENT Specialist, that his herniorrhaphy matches that of any industrial surgeon, and so on ad nauseam. My own classification of this man is at variance with both of the above—I consider him and all like him a General Menace, dangerous to his profession and to patients alike. It has been said that the fool who knows he is a fool may prove to be valuable, but the fool who thinks he is smart is dangerous. This man is not a fool. He is poorly trained, careless and egotistical—a dangerous combination.

Just two weeks ago a fifty-three-year-old woman consulted me for the first time. She had passed through the menopause two years earlier. For the preceding four months she had experienced almost constant left lower quadrant abdominal pain and recurrent vaginal bleeding. She had consulted a physician promptly at the start of her complaint. She had seen him regularly since then until his death two weeks before she consulted me. My examination disclosed the presence of a pelvic tumor the size of a small watermelon. This was palpable not only by bimanual examination but even on abdominal palpation. In answer to my questioning she revealed that in the four months she had been seeing him my predecessor had never examined her below the ribs, but had been content to take her blood pressure and to listen to her heart. Total hysterectomy three days after she first consulted me found a large fibroid—within which were two areas of hemorrhagic softening identified by the pathologist as sarcomatous degeneration. A life had been spared—but by how narrow a margin?

It is probably worth the risk of being repetitious to point out that the proper diagnosis in each case quoted depended

not on any extraordinary diagnostic acumen nor on the execution of intricately scientific laboratory investigation—it depended only on ordinary clinical thoroughness equally available to each of us.

It has been my policy since my earliest days as a country doctor to do a complete physical examination on every patient I see; at least a complete history, a head-to-toe physical examination, a hemoglobin determination, a urinalysis including a microscopic study of the sediment after centrifugalization, and a blood Wassermann. This provides an effective basic diagnostic work-up, after which additional studies such as complete blood count, blood chemistry, x-rays, EKG, BMR, biopsy or consultation may follow as indicated by the findings of the basic work-up. The basic work-up is preferably done in my office, but can be initiated or even completed if necessary in the patient's home. Its cost is within the reach of all. There is no wasted time or expense. It can be completed in my office within an hour. It provides the diagnosis in a significant percentage of cases, and leads to the ultimate diagnosis in more complicated cases to a gratifying degree. The doctor who pursues this course of action, paying meticulous attention to detail without wasting his or the patient's time on non-essential trimmings, not only stands to gain in professional stature but rests secure in his own self-respect, as well as in the respect of his patients and of his fellows in the profession. He practices a brand of medicine perhaps devoid of the glamour of the professor and high-class consultant, but containing the same essential component: thorough observation of the patient. *It can be practiced even by the physician isolated in a rural community or by the urban G. P. denied hospital affiliation.*

I was immeasurably pleased by the following patient. A fifty-six-year-old man consulted me because of swelling of the ankles of two weeks duration. This had

been present unvaryingly day and night since its onset. Urinalysis was negative. The complete work-up disclosed an apparently normal cardiovascular system; the only positive findings were the non-pitting edema extending up the lower one-third of both legs and a faint inspiratory wheeze heard on auscultation of the right chest. My basic work-up completed, to further investigate the pulmonary wheezing I walked the patient across the hall to my roentgenologist who found a walnut-sized tumor in the right middle lobe which proved to be an early bronchogenic carcinoma when a pneumonectomy was performed two days later after preliminary bronchoscopy. A minimum of fuss and glamour—but a maximum of service to the patient. The edema was due to secondary hypertrophic osteo-arthritis (Marie's disease) and disappeared spontaneously two days following pneumonectomy. There was also clubbing of the fingers and toes.

**Perfection is Utopian and Unattainable** To be perfect doctors we should have to be perfect patients. It takes more courage than most of us possess to demand of ourselves the sacrifices we insist on from our patients. Our personal advocacy of the minor vices constantly weakens our position with the patients, either in robbing our demands of importance or in rendering us incapable even of making certain essential demands of our patients. Consider the gluttonous physician who with straight face warns his plethoric patient that unless he curbs his appetite for food and liquor and loses forty pounds he will leave himself wide-open for the ravages of hypertension—or of diabetes—or of arteriosclerotic heart disease. Or consider the ear, nose and throat specialist who smokes forty cigarettes daily, who performs operation after operation on the nose and its accessory sinuses of the patient who smokes the same number of cigarettes a day—but who never has the courage to order the

patient to stop smoking because smoke is an irritant and may be all that is causing his chronic sinusitis and recurrent polyposis. Or consider the physician of intemperate alcoholic habits who treats the patient who is a chronic alcoholic.

**The Report of The So-called Magnuson Commission**, the President's Commission on Health Needs, was submitted to President Truman. It reports on a carefully documented and thoroughly competent study of the total health requirements of the nation. Time is needed for thorough analysis of the report but certain of its disclosures are clear on first inspection. The report states, for instance, that the curse of small town practice is "professional isolation", but it goes on further to claim that "in the very shadow of our great medical centers some of the worst general practice is found." I find this comment in the report particularly interesting: "Everyone agrees that he" (the general practitioner) "should NOT do certain things—brain surgery and chest surgery, for example. No one agrees what he SHOULD do. This will be a lot easier to do when he is working as part of a team. Actually, when he is made part of a team, the G. P. often ends up working as an internist. Perhaps in the future he should be trained as such." *"And perhaps today's internists are tomorrow's family doctors."*

The exact dividing line between the G. P. and the internist has long been a matter of conjecture to me—and to many others. I am sure. The difference is to some a matter of humor (albeit tinged perhaps with a bit of envy and even malice) as in the following oft-quoted definition: "An internist is a general practitioner who owns a Cadillac." Even this bitter facetiousness no longer holds water in the light of the latest *Medical Economics* Survey which discloses that today the average earnings of G. P. and Internist are practically identical, whether total gross, total net or hourly gross or net earnings

are compared. Perhaps a more important difference described is that "the Internist gets his patients undressed". The remark simply over-simplifies the fact that the chief difference is one of thoroughness of study.

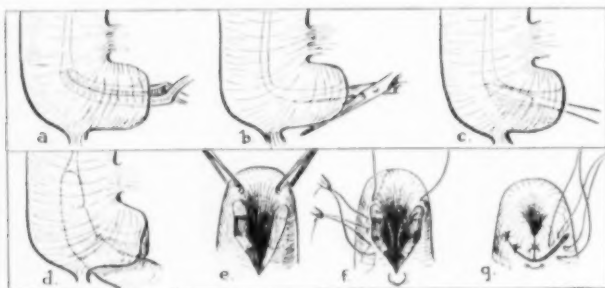
**Many Suggestions** are made by the Magnuson Commission for improving the standard of medical care given to the nation. They include increased availability of hospital staff appointments and privileges to the G. P., more and better hospitals, Federal financial assistance to the needy—patients, hospitals and medical schools. I know of no recommendation for what I consider to be the keystone of a higher standard of medical care to the nation—greater attention to the thorough study of *every* patient by *every* doctor by the simple and inexpensive methods described in this paper. Neither better med-

ical education, better hospital availability nor Federal financial assistance can provide this NOR supplant this; only the conscience of all of us can achieve it!

No, we cannot all be perfect, nor can we all be geniuses or even learned professors. We can all be good doctors. I shall always maintain that anyone who has the background to be accepted by a grade A medical school and the drive and intelligence to earn his degree of Doctor of Medicine possesses the prerequisites to be a good doctor. To accomplish this objective he needs only his integrity, a true interest in his patients' welfare, and a willingness to devote to every patient time, thought and interest. This I consider the true art of the practice of medicine.

Devereux Professional Building  
468 Delaware Avenue

## Clini-Clipping



Posterior division of the cervix to overcome stenosis about the internal os. a. Dilating the cervix; b. Division of the posterior wall of the cervix with scissors; c. A knife is used to complete the division up past the internal os; d. Division completed permitting the finger to be passed up through the internal os; e. After division of the posterior wall of the cervix wedges of tissues are removed from the cut edges; f. Sutures in place for closing the wound; g. Sutures tied bringing the tissue into the angle of the incision to keep the internal os open.

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# Clinico-Pathological Conference

**New York University-Bellevue Medical Center Post  
Graduate Medical School, Department Of Medicine at  
Bellevue Hospital, Fourth Medical (N. Y. U.) Division**

## **PATIENT J. S.**

This 62-year-old white male entered Bellevue Hospital 4th Surgical Service on 10/29/51 complaining of epigastric pain.

He had enjoyed good health until 31 years prior to admission when he began to experience epigastric distress and pain and fatty food intolerance. A cholecystectomy was performed at that time and he has had intermittent epigastric distress, belching, and occasional nausea ever since, all relieved on occasion by antacids. The pain had increased in frequency and intensity, so that for the past 1½ years, it had become constant, severe, and radiated either "straight through" to the back or around to the flanks and anteriorly down both legs. Though originally there had been no relation to food, meals or emotion, the patient had noted that during the past 1½ years, food worsened the pain. He lost a considerable amount of weight during this period (18 pounds, but patient had anasarca) because food caused him greater pain. It was necessary for him to be hospitalized five times during this one-and-a-half years prior to admission for the control of his pain; opiates were often required. He never had any jaundice, dark urine, acholuric stools or hematemesis. For one month prior to admission, he had bouts of vomiting; he

was unable to take the high-protein meat regimen he had been put on on one of his previous admissions elsewhere.

He had been a chronic alcoholic until two years prior to admission and had not touched a drop since then. At that time, he began to develop bilateral ankle edema and, one year ago, testicular edema and ascites. For 6-9 months prior to admission, his stools became light in color (not clay-colored) and foul smelling. There was never any melena or diarrhea.

He developed diabetes ten years prior to admission and had been nicely controlled on 35 units of P.Z.I. daily during this time; he never had shock or coma prior to admission.

**Physical Examination** T. 99.2° P. 68/min. R. 20/min. B.P. 150/80. The patient appeared to be an elderly, cachectic, white male with wasting of the upper extremities and generalized anasarca below to the chest wall. There was no telangiectasia and no red palms. Edema fluid was noted up to a level of the xiphoid-sternal junction. There was no lymphadenopathy. Bilateral arcus senilis was present as was a slightly "furry" tongue with no papillary atrophy. There was an increased AP diameter of the chest with diminished breath sounds and diminished

## Laboratory Data

Urines											
Date	Color		pH		S.G.	Alb.	Sug.	Acetone		WBC	
10/30/51	clear, yel.		acid		1.011	0	0	0		6-9	
Subsequent q.i.d. urines for sugar and acetone reported as negative.											
Blood											
Date	Hgb.	BUN	Cl	Na	K	FBS	Proth. Time	Alk. Phosph.	Ser. Bilir.	A/G	Ser. Amylase
10/30/51	13.0	15.2	92	143	3.8	154	17.8	18.44	0.56	2.24	1.45
										2.31	
11/1/51	B.S.P.	45 minutes 60% retention				60 minutes 66% retention					
11/8/51	Glucose Tolerance Test (without adequate preparation)										
		F.B.S.				69.7 mgs.	%				
		1/2 hour				135 mgs.	%				
		1 hour				135 mgs.	%				
		1 1/2 hours				211 mgs.	%				
		2 hours				170 mgs.	%				
11/6/51	Gastric Analysis										
		Free Acid:				Fasting		1/2 hour		1 hour	
		Total:				85		35		165	
						118		170		180	
X-Rays											
10/30/51	Flattening of both diaphragms. Pneumonic process of the bases of both lungs. Flat plate of the abdomen reveals extensive calcifications in the entire pancreas.										
10/31/51	(1) Calcifications throughout the entire pancreas as previously reported. (2) No organic pathology of the stomach or duodenum. (3) Abnormal small bowel pattern with an ironing out of the mucosal folds and a woolly appearance of the mucosal relief pattern, evidently associated with failure of fat digestion and fat absorption.										
11/1/51	A scout film reveals areas of calcification throughout the entire pancreas.										

tactile fremitus and inspiratory and expiratory wheezes throughout. Crepitant rales were heard at both bases posteriorly. The heart was not enlarged; the sounds were of good quality and no thrills, murmurs or arrhythmias were present. There was marked ascites; the liver, spleen and kidneys were not palpable. No venous distention was seen. No masses or tenderness were noted. The genitalia were adematous. On rectal examination the prostate was normal; a band-like structure was present about one inch above the prostate. There were no hemorrhoids. The stool on the examining glove was yellow in color and foul smelling. There was a 4+ pitting edema of both lower extremities with

stasis dermatitis. The pedal pulses were not palpable and there was no calf-tenderness or clubbing. Neurological examination was normal.

**Course** He was placed on a C 150 diabetic diet and controlled with P.Z.I., 15-35 u. O.D. Protein supplements were given and analgesics for his pain. Vitamin supplements were also employed. An attempt to pass a tube through the pylorus for pancreatic function studies was unsuccessful. He vomited brownish liquid on two occasions, and was afebrile throughout his course.

The patient rapidly went downhill and on 11/10/51, 12 days after admission, expired.

Case presented from the wards of the Fourth Medical Division, Bellevue Hospital, Dr. Charles Wilkinson, Dir.

Write your own clinical impression or formulation here, if you wish.

## Pathological Findings

This is an interesting case of diabetes mellitus and several of its complications that have developed in association with *pancreatic lithiasis, fibrosis and atrophy of the pancreas*. Although this lesion has been called by several names, such as "diffuse calcification of the pancreas",<sup>1</sup> it should be kept in mind that the calcium is laid down in intraluminal concretions rather than in interstitial or necrotic parenchymal substance. It is currently believed by many investigators that these stones develop in the wake of recurrent attacks of interstitial or acute, hemorrhagic pancreatitis.<sup>2,3</sup> Nevertheless the pattern of fibrosis and atrophy of the exocrine organ may be induced by experimental occlusion of the pancreatic duct. In the present instance there was a free communication through a common ampulla of Vater with the common bile duct; theoretically, at least at one time, reflex of biliary secretion into the pancreatic duct was possible. Nevertheless, we have seen other instances, in which there was no common ampulla.

Although the presence of stones in the pancreas apparently was not known to the patient more than 6 months prior to his death, one may properly speculate whether this is of much longer duration and the diabetes secondary to pancreatic atrophy. This sequence of events is known to occur in approximately a third of these cases. If so, this is an unusual background for the development of *intercapillary glomerulosclerosis*. Clinical data are insufficient to establish a clinical counterpart of a full Kimmelstill-Wilson Syndrome, although the patient had the diabetes, hypertension and hypoalbuminemia.

Another complication of the diabetes and hypertension was a *healed infarct of the heart*, in the posterior wall of the left ventricle. This had been caused by *atherosclerosis of the right circumflex*

*coronary artery, with thrombosis, organization and recanalization*.

Finally, there were curious changes in the liver and biliary tree. The common bile duct was somewhat dilated and thick walled, principally near its pancreatic stones. The papilla of Vater was somewhat edematous. The gallbladder had been resected years ago. The liver had an unusual appearance—it presented changes both of 1) biliary cirrhosis and 2) central fibrosis. These are separate processes and concerning their pathogenesis one may consider that the central fibrosis is

1. A cardiac cirrhosis secondary to the dilated heart. This does not account for the degree of bile duct proliferation and cholangitis.

2. Healed central necrosis of the liver. Central necrosis of the liver occurs at times with acute myocardial infarction; usually it is found in association with irreversible shock; such fibrosis is not commonly seen in individuals recovered from myocardial infarction. Healed central necrosis due to other toxic agents may be considered; there is a history of chronic alcoholism. Central necrosis due to infectious hepatitis does not so far as is known heal with central fibrosis.

3. Simple obstructive biliary cirrhosis is unlikely due to the fact that there is central fibrosis and no bile stasis. It is recognized that once established the anatomical changes of stasis resolve slowly. Nevertheless we doubt that this lesion has been present since the cholecystectomy 30 years ago. It may involve transient or low grade obstruction at the pancreatic region.

It is not at all clear that biliary disease commonly plays an etiologic role in the pathogenesis of pancreatic lithiasis.<sup>4</sup>

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Twenty-Nine cases, without Associated Disease of the Biliary or Gastrointestinal Tract. *Gastroenterol.* 6, 239-376, 1946.

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## PATIENT E. L.

This 48-year-old colored female was admitted to Bellevue Hospital on 9/11/51 complaining of dizziness, headache and itching of the skin.

She had been enjoying good health until 9 months p.t.a. (prior to admission), when she began having menorrhagia. The latter was then attributed to a fibroid of the uterus at Harlem Hospital but, because of the discovery of hypertension at that time, it was decided to avoid any surgical procedure if possible. It so developed that the menorrhagia ceased and, 6 months p.t.a., she became amenorrheic. Associated with the amenorrhea had been nervousness, irritability and hot flashes.

For about 8 months p.t.a. the patient had been experiencing intermittent, throbbing, frontal headaches, dizziness, tin-

nitus and decreased visual acuity. During this time she developed slight exertional dyspnea, occasional ankle edema, nocturia 3-4x and paroxysmal nocturnal dyspnea.

For 6 weeks p.t.a. she had had itching of the skin which, she claimed, was made worse by food intake. Because of this she ate very little and noted a profound weakness and fatigue; she claimed to have lost considerable weight—from 240 down to 156 pounds over an unknown length of time. She never noticed jaundice. No nausea or vomiting. No melena, bloody stools or diarrhea.

She had pneumonia 25 years p.t.a., but knew of no recent "strep" throat or other infection.

Physical Examination T. 99 P. 132 R.

## Laboratory Data

Urines										
Date	Cath.	Color	S.G.	pH	Alb.	Sug.	Acet.	WBC	RBC	Other
9/11/51	No	yellow	1.006	6.5	3+	0	0	loaded	loaded	gran. casts
9/12/51	No	yellow	1.005	7.5	trace	0	0	loaded		
9/13/51	No	yellow	1.008	7.5	2+	0	0			
9/14/51	Yes		1.005							
9/24/51	Yes		1.005							
Blood Counts			Differential							
Date	Hb.	RBC	WBC	T.	P	L	M	E	B	ESR
9/12/51	7.0	2.56	7,150	4	68	23	2	1	2	100
9/21/51	10.0		3.85							96
Blood Chemistries										
Date	NPN	Creat.	BUN	A/G	I.I.	Na*	K*	Cl*	CO <sub>2</sub>	Ca
9/7/51 (pta)		9	56							
9/12/51	129	3.6	75	5.4/3.2	3	142	3.7	97.4	62	
9/14/51										10
9/27/51						128			20	

\* meq/L

† vols. %

9/12/51 Serology Mazzini 2+ Wass. negative  
9/12/51 Stool for occult blood 1+  
9/20/51 Stool for occult blood 4+  
9/17/51 Chest X-Ray—No infiltration or consolidation.

tion. Heart normal in size and shape. Slight widening of the supracardiac aorta.

9/11/51 E.K.G.: No deviation electrical axis. Vertical heart. N.S.R. The changes are compatible with the diagnosis of left ventricular hypertrophy in a vertical heart. Digitalis effect may also play a part.  
9/17/51 Benzodioxane test—Negative.

24 B.P. 240/140. The patient was a well-developed, fairly well-nourished, colored female, who was mildly dyspneic at rest and appearing acutely and chronically ill. She showed evidence of some recent weight loss; the skin was dry and scaling. The pupils were round, regular and equal and reacted to light and accommodation. The sclerae were clear and the conjunctivae injected. Bilateral arcus senilis was present. The optic discs were blurred at the edges and retinal edema was present. The arterioles were narrowed and tortuous and revealed an increased light reflex. The veins were distended. There were flower-shaped hemorrhages and many star-shaped, whitish exudates in both retinae. The ears were not remarkable; the oral mucus membranes were pale and the tongue was moist, well-papillated, and coated with a thick, yellow material. Examination of the neck, chest and lungs was negative. The heart was enlarged 2 cms. beyond the MCL in the 6th ICS. The impulses were forceful and the PMI diffuse, N.S.R. The sounds were of good quality. A fairly loud, coarse, systolic blow was heard over the apex, up toward the sternum in the 3rd left L.C.S., up to the aortic area and transmitted to the neck. A2 > P2. The abdomen was protuberant. A liver edge was palpated

2 f.b. below the RCM; it was firm and somewhat tender. Filling the entire lower abdomen up to the level of the umbilicus was an irregular, firm, immobile mass about the size of a football. There was no ascites. Pelvic examination revealed the uterus to be incorporated in this mass, which also filled the entire pelvis and cul-de-sac, where it was noted to be tender. There was no clubbing or edema of the extremities, and neurological examination was normal.

**Course in Hospital** She was treated with a salt-free diet and digitalized. Nausea and vomiting rapidly became a usual finding and muscle cramps appeared. Amphogel and calcium gluconate were given as was intravenous nourishment. The headaches and dizziness persisted. On 9/24/51 she developed a "uremic frost". The patient gradually became more stuporous, the skin more dry, and the respirations slow and deep. On 9/27/51, her B.P. was recorded as 190/110, Na 128 meq/L and  $\text{CO}_2$  20 vols %. Na lactate M/6 was started, but the patient expired later the same day. She was afebrile throughout her course; the admission pulse rate of 132 had fallen to normal rate the next day and remained so, and the urinary output remained adequate throughout her course.

Case presented from the wards of the Fourth Medical Division, Bellevue Hospital, Dr. Charles Wilkinson, Dir.

Write your own clinical impression or formulation here, if you wish.

### Pathological Findings

This case illustrates the syndrome of so-called "myoma heart", i.e., the coexistence of symptoms of large *fibromyomata uteri* and hypertensive heart disease associated with *arteriolar nephrosclerosis*.

Although some fairly well controlled studies<sup>1</sup> indicate that women with clinically demonstrable fibroids have a significantly higher average systolic pressure than women of similar age who do not,

we have not been able to demonstrate that hypertensive cardiovascular disease is unusually associated with fibroids in necropsy material at Bellevue Hospital. The association of this hypertensive lesion with the uterine one is probably purely fortuitous. It is of interest however, that both hypertension and fibromyomata uteri occur in considerably higher incidence in Negroes than Whites. At necropsy, fibromyomata uteri (not distinguished as to size) are found in 50% of all Negro females above the age of 15, and only in 25% of the Whites.

Although the uterine tumor resulted in a mild degree of hydronephrosis and slight atrophy of the kidney, the principal changes are those of severe arteriolar nephrosclerosis. There is little or no

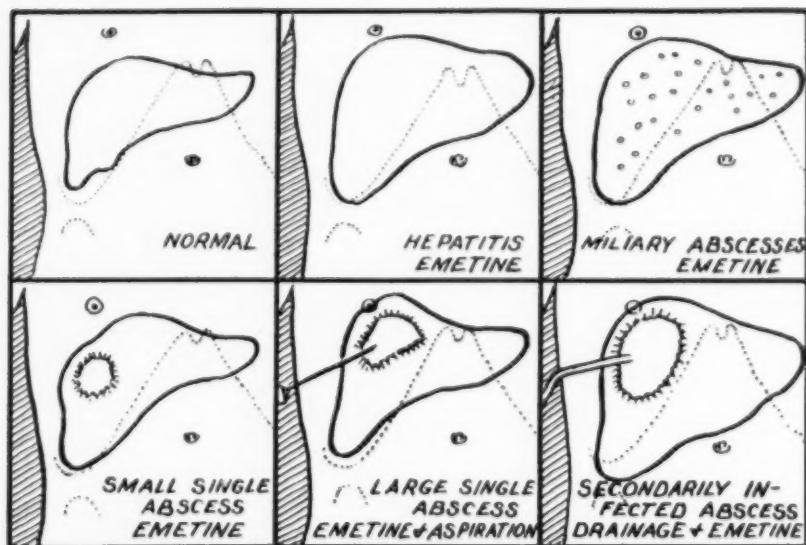
evidence of chronic pyelonephritis. Frankly necrotizing arteriolitis is not seen. The systemic arteriolar lesion is very severe; in the pancreas this is complicated by thrombosis of arteries, and infarction;<sup>2</sup> arteritic lesions are not seen.

There is no hyperplasia of the parathyroids—the serum concentration of calcium was not elevated. Small anemic infarcts are found in the corpus callosum. The arteriolar sclerosis in the brain is the morphologic counterpart of the hypertensive encephalopathy.

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### Clini-Clipping



Stages of liver involvement in amebic dysentery and treatment (according to Napier).

# Tumors of the Hand

## Part Four

### Tumors of Tendons, Synovia, and Bones of the Hand

**Ganglion** A ganglion is a cystic swelling arising from a tendon sheath or the capsule of a joint. It is most common on the dorsum of the wrist, but is also frequently seen on the palmar surface of the wrist, the flexor tendon sheaths of the distal palm and proximal phalanx, and over the dorsal surface of the distal phalanx of a finger or toe, and occasionally on the dorsum of the foot.

Ganglia are most common in the second and third decades, and occur in three women to one man. There are two main views on the origin of ganglia. One view is that it is a herniation at the site of a weak point in the joint capsule or tendon sheath. The more widely held opinion is that it results from a degenerative process in the mesenchymal tissue around the capsule or sheath. Probably trauma, e.g., frequently-repeated movements, is responsible for the development of some ganglia.

A ganglion is usually first noticed by the patient as a smooth, rounded, subcutaneous mass seen and felt in one of the locations mentioned above (Figures 29 and 30). It is generally firm, but may feel cystic. Motion of the joint over which the ganglion lies frequently makes the lesion more prominent. Ganglia are often completely asymptomatic except for the

presence of the mass. However, pain, and weakness of the wrist or hand are common complaints. The pain is usually of a dull, constant character, but may be made sharp by movement or pressure.

Grossly, a ganglion is a thin-walled cyst filled with sticky, clear, colorless, myxoid fluid. The cyst may be multi-loculated. Although a thin stalk may extend some distance from the superficially located ganglion to the joint capsule, there is ordinarily no communication between the lumen of the ganglion and the joint space.

Histologically, the ganglion wall is composed of layers of collagenous fibrous connective tissue. There is usually no lining, but there may be a thin layer of mesothelium.

Ganglia occasionally disappear spontaneously. Removal is warranted because of pain, weakness, and the desire of the patient to be rid of an unsightly mass. Asymptomatic ganglia need not be removed.

Ganglia may be treated by three methods: rupture, aspiration, and excision. Rupture of a prominent superficial ganglion can be accomplished by striking it sharply with a heavy book. About fifty per cent of ganglia ruptured by this method recur, and there is, of course, the

danger of producing a bone fracture by too-ambitious an effort.

Aspiration is usually unsuccessful since the fluid is too thick to be withdrawn through even a large-bore needle. Even if evacuated, the cyst frequently refills. Injection of a sclerosing agent after aspiration offers little additional benefit.

The most satisfactory method of treatment is excision. This is best accomplished under local anesthesia with a dry field produced by a tourniquet. Incision over a joint should be in line with the skin folds. Important is meticulous dissection with complete removal of the cyst and all involved tissue. If the joint is opened during the dissection, no attempt should be made to close it. A snug pressure dressing should be worn for seven to ten days, after which active motion may be started. The patient should be informed that the ganglion may recur.

**Xanthoma (Giant Cell Tumor) of Tendon Sheath** Xanthomata are benign tumors most commonly seen on the dorsal and palmar surfaces of the fingers of middle-aged people. (Figure 31.) They

are recognized as firm, somewhat nodular, frequently lobulated subcutaneous masses that are usually adherent to the skin, and move with the tendons. Their origin is obscure, but they are frequently familial, and may be associated with diabetes mellitus.

A xanthoma grows slowly by expansion. The symptoms are deformity and slight tenderness. At operation the lesion is seen to be a firm, yellow-brown tumor adherent to the under-surface of the skin and to the tendon sheath.

Histologically the tumor is composed of an abundant "stroma" of spindle-shaped cells and fibrous tissue, with scattered collections of multinucleated giant cells, and large "xanthoma" cells with abundant "foamy" vacuolated cytoplasm. The tumor resembles the giant cell epulis of the jaw, and the benign giant cell tumor of bone (Figure 34).

Excision is the treatment of choice. Under local anesthesia, the tumor is freed up by blunt and sharp dissection. Complete removal is essential if recurrence is to be prevented. The tumor is

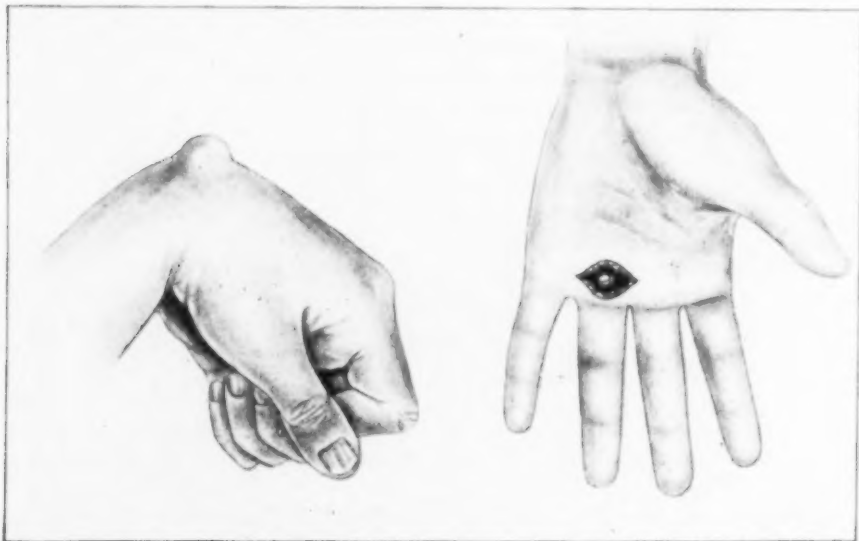


Figure 29. Ganglion on dorsal surface of wrist.

Figure 30. Ganglion on flexor tendon sheath of the distal palm.



FIG. 31



FIG. 32



FIG. 33

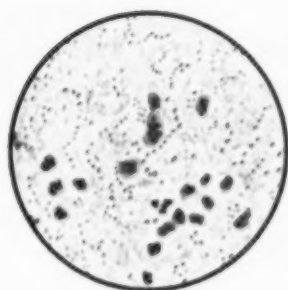


FIG. 34

J. B. GRIFFITH

**Figure 31.** Xanthoma on dorsal surface of the finger.

**Figure 32.** Giant cell tumor of finger.

**Figure 33.** X-ray showing giant cell tumor (Fig. 32).

**Figure 34.** Microscopic appearance of giant cell tumor.

not radiosensitive.

### **Tumors of Bones of the Hand**

Tumors of the bones of the hand are rare. Of the small number of reported cases of benign tumors 75% were of the phalanges, 25% of the metacarpals. Malignant bone tumors of the hand are extremely rare.

**Giant Cell Tumor of Bone** Benign giant cell tumor of the phalanx presents as a firm, slightly tender swelling of the phalanx (Figure 32). X-ray reveals thinning of the cortex over a rarified lesion that contains many trabeculae and gives appearance of "bubbles" (Figure 33).

Histologically (Figure 34) the lesion resembles the giant cell tumor of the tendon sheath, except for the presence of very few "xanthoma" cells.

Curettage, with filling of the defect so made with bone chips or a bone graft, is the treatment of choice. X-ray is effective in some cases, but its use has the disadvantage of not allowing for a

histological diagnosis that can only be definitely made by surgery. Malignant giant cell tumors of the hand are extremely rare.

**Benign Chondroma** This tumor occurs in the periosteum of the phalanges and in the metacarpals and phalanges themselves (Figure 35). It is most common in the third decade of life. Grossly the chondroma of the periosteum of the phalanges presents as a firm rounded mass of considerable size, which produces deformity and disability. X-ray may show some deformity of the underlying phalanx, but not an involvement of the bone proper. Treatment is excision under local anesthesia.

The more common type of chondroma occurs in the shaft of a metacarpal bone or phalanx. The tumor usually remains within the cortex. X-ray reveals enlargement of the bone without the trabeculations seen in giant cell tumors (Figure 36). Histologically, chondromas are com-



Figure 35 Benign chondroma of the terminal phalanx.



Figure 36 X-ray of benign chondroma (Fig. 35).

posed of an overgrowth of fairly normal cartilage with cartilage cells arranged in pairs and tetrads in small lacunae. Treatment consists of complete removal of the tumor by curettage. If the tumor is completely removed, it does not recur.

**Osteogenic Sarcoma** Although this is the most common malignant tumor of

bone (occurring usually in long bones near the epiphysis), it is very rare in the hand. Local pain and swelling are the common symptoms. X-ray reveals extensive bone destruction with new-bone formation. Treatment is amputation with lymph node dissection, and is obviously beyond the scope of office surgery.

### Summary

As a general rule, excluding warts, hairy nevi, and granulomatous lesions, skin tumors of the hand should be considered malignant until proven otherwise. However, tumors of the subcutaneous tissues, tendons, synovia, and bones of the hand are rarely malignant. This generalization should not be relied upon, however. It cannot be stressed too often that excision with the cold knife is the treatment of choice of all lesions of the hand (except for some warts and granulomatous lesions), and histological ex-

amination of every lesion removed is essential. Only in this way can grievous errors in diagnosis be prevented. Under no circumstances should cautery or electrodesiccation ever be used for the removal of nevi or lesions of the skin, the diagnosis of which is at all doubtful. While diagnostic x-ray is advisable in all questionable lesions, as a general rule, x-ray therapy is inadvisable in the hand because its resultant fibrosis limits the hand's all-important function of motion.



### Protein Digestion, Absorption Measured by Isotope Tracer

A method for determining the efficiency of protein digestion and absorption has been described by Lavik and his associates\* of Western Reserve University, Cleveland, reported in a recent *Currents In Infant Care*. The test consists of measuring the isotope content of the feces collected for three days following oral administration of  $I^{131}$ -labeled protein.

The investigation included 15 children between the ages of 1.6 and 9 years. Five patients suffered from cystic fibrosis of the pancreas. The remaining ten were without gastrointestinal disease and served as controls.

The children with cystic fibrosis of the pancreas (not receiving pancreatin) excreted 10 to 40 per cent (average 22.5 per cent) of the ingested isotope in the feces when fed the  $I^{131}$ -labeled protein. In none of the control patients did the fecal excretion exceed six per cent.

Two of four children with cystic fibrosis of the pancreas, retested with the addition of pancreatin to their test meal, showed a 50 per cent decrease in the fecal excretion of the isotopes. However, one patient, having been given pancreatin, still excreted 40 per cent or more of the ingested isotope. When the test was repeated with pre-hydrolyzed protein, isotope excretion dropped to eight per cent, indicating the inability of this child to digest whole protein effectively.

\* Lavik, P. S., et al. *Pediatrics* 10:667 (December) 1952.

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# EDITORIALS

## Man, the Enigma

Man is an inscrutable creature; on the one hand he creates "the potential weapon of world suicide, threatening his very existence," and on the other he utilizes radioactive isotopes to restore and normalize certain pathological aberrations, not to mention the possibility of industrial application of nuclear energy which could revolutionize present processes and make humanity comfortable, efficient without undue physical strain, and relatively happy.

## Doctors' Paradise

According to the *American Journal of Sociology*, the chief function of the physician in Soviet Russia is to act as a preventive, maintenance and repair engineer so as to keep production up by keeping the producers on the job.

Workers have to be in pretty bad shape before the doctors will give them "sick slips" for tardiness or absence, for which they are subject to heavy fines. The factor of malingering is dealt with meticulously. Then the doctors themselves are policed by government agents masquerading as patients; they endeavor to trap the doctors into illegal action.

Yet the "party" always stands ready to penalize the doctor if he resists pressure to issue "sick slips" when they may perhaps be unwarranted.

The whole system is geared to the totalitarian machinery of the communist state.

## The Sabotage of Practice Continues Apace

Professional judgment registers opposition to the coalition of politicians and hospitals to build and staff clinics in public housing projects, with family-physician set-ups to take care of indigent tenants in their apartments and in the clinics. There is reason to believe that it is planned to *build in* such clinics in many cities of the state of New York.

It occurs to us that if such enterprises with tax money are contrary to long-range professional and civic interests that such projects on the part of hospitals should be taken into account by the American Medical Association and the American College of Surgeons in the official rating of such institutions.

The breed of doctors who lend themselves with avidity to such actions continue to be enigmas; indeed they are inscrutable.

## The British Profession in Further Jeopardy

Britain's nationalized doctors have a new bugbear with which to contend. Malpractice suits have increased by more than four times since the institution of

WORLD

socialized medicine (July, 1948). At this rate the system will be so moth-eaten in a decade as to be automatically disintegrated. Lawsuits will constantly bedevil the average physician. This is a bad mark against the welfare state that no one expected. It seems to be a final blow—the last nail in the coffin of the once great British medical profession.

The *British Medical Journal* thinks that

"the situation is ruining the morale of doctors as well as the reputation of the medical profession."

And it seems that hospitals mulcted in damages are forcing the doctors concerned to make losses good. Imagine the bad relations engendered by such a policy.

Therapeutic progress is also hampered because no chances whatever of side-effects are taken experimentally.



### **Exploratory Operation Needed To Diagnose Some Lung Cancers**

Early diagnosis and effective treatment of cancer of the lung require in some instances that an exploratory operation be accepted as a means of establishing definite diagnosis of localized pulmonary lesions, in the opinion of Drs. Philip E. Bernatz and O. Theron Clagett, Rochester, Minn.

Although chest x-rays and other non-surgical diagnostic procedures have proved beneficial in determining some cancers of the lung, positive diagnosis in other cases only can be made by examination of the tissue involved, the doctors wrote in a recent *Journal of the American Medical Association*.

They reported on 356 cases of persons with localized pulmonary lesions operated upon between April, 1947, and December, 1951. An exploratory operation was necessary for definite diagnosis in 180 (50.6 per cent) of the patients. Of the 356 patients studied, 203 were found to have cancer of the lung.

"Thirty-seven of the 203 cases were symptomless," the doctors pointed out. "In only one of the 37 cases was the carcinoma inoperable at the time of exploration. On the other hand, in the re-

maining 166 cases of the 203, there were symptoms from the pulmonary carcinoma and, of these, in 59 (35 per cent) the lesion was inoperable."

The risk of such an exploratory operation is slight, and securing an accurate pathological diagnosis does not require sacrifice of normal pulmonary tissue, the doctors stated, adding:

"There were 11 deaths, a total hospital mortality rate of 3.1 per cent. All the deaths except one were of patients who underwent resection for malignant pulmonary lesions, and, in that one case, extensive pulmonary resection was necessary on a patient one year of age.

"Some patients may believe that they have much to lose if the thorax is explored and a benign lesion is found. They have life itself to lose, however, if a lesion of undetermined nature turns out to be malignant."

Although in 119 of the 356 cases studied by the doctors the lesions were benign, almost without exception they were of types best treated by resection. A total of 30 different pathological conditions were found upon exploration.

Dr. Bernatz is a fellow in surgery, Mayo Foundation, and Dr. Clagett is associated with the division of surgery, Mayo Clinic.

## OPHTHALMOLOGY

RALPH L. LLOYD, M.D., F.A.C.S.\*

### **Incidence and Diagnostic Value of the Ocular Fundus Lesions in Hospitalized Medical Patients**

C. D. Benton, Jr. (*American Journal of Medical Sciences*, 224:554, Nov. 1952) reports the careful ophthalmoscopic examination of 500 patients in the medical wards of a general hospital. No lesions of the ocular fundus were found in 222 of these patients; in 75 cases, the ocular abnormalities found were not related to the disease, chiefly congenital anomalies and lens opacities. Findings that were significant in relation to the patient's disease were noted in 208 cases. In acute alcohol poisoning, the fundus lesions were found to progress from hyperemia of the optic disc to a more or less severe peripapillary edema; ophthalmoscopic examination of the fundus of an unconscious patient should aid in a diagnosis of methyl alcohol poisoning on the basis of these findings. In 38 cases of diabetes mellitus, 19 showed no evidence of their disease on ophthalmoscopic examination; 6 had cataracts; and 13 showed fundus changes varying from a small capillary aneurysm to the "full blown picture of diabetic retinopathy." Dilatation and tortuosity of the small retinal venules is often seen in diabetes; such fundus changes are not diagnostic of diabetes, but should suggest the possibility of this disease. The most characteristic fundus findings in medical cases are the retinal arteriolar changes in hypertension. Using Keith and Wagner's classification of diffuse retinal arteriolar changes in relation to the degree of hypertension, it was found that in 56 of 81 patients with hyper-

tension, the arterial blood pressure was within the range predicted by this classification; in 8 cases the blood pressure was higher than indicated by retinal changes, and in 15 patients it was lower than that indicated by the ophthalmoscopic findings; 5 of this latter group had congestive heart failure or some other disease that caused a temporary fall in blood pressure. The conclusion drawn from the study of this group of patients is that the ophthalmoscope gives more information about hypertension, its nature, prognosis and treatment, than any other diagnostic instrument. In patients with hypertension complicated by chronic kidney disease, the retinal "cotton-wool patches" (fresh exudates) were much more common than in hypertension without renal involvement. This ophthalmoscopic finding in a patient with hypertension is an indication for a careful study of renal function.



Lloyd

#### COMMENT

Careful examination of the fundi is an essential in many conditions which are too numerous to mention here. These examinations cannot be done without dilating the pupils as a rule. Certain diseases like diabetes, hypertension and nephritis require it as a routine. Head injuries, headaches and coma need fundus examinations even more.

R.L.L.

\*Consulting Ophthalmologist, Cumberland, Prospect Heights, Brooklyn Eye and Ear, Long Island College and Peck Memorial Hospitals, Brooklyn.

## Syphilitic Optic Nerve Atrophy Treated with Penicillin

C. D. Benton, Jr. and J. Frank Harris (*A. M. A. Archives of Ophthalmology*, 48:449, Oct. 1952) report a follow-up study of 23 patients with primary syphilitic optic nerve atrophy treated with penicillin two to six years previously. There was only one patient with congenital syphilis in this group; 5 of the patients had tabes dorsalis, and one had meningo-vascular syphilis causing hemiplegia. The cerebrospinal fluid showed a strong positive Wassermann reaction in every case; also increased cell count and increased protein. The diagnosis of optic nerve atrophy in these cases was based on the decrease in vision, that was not improved by lenses, pallor of the optic disk, and the character of the visual field defects. In 2 patients the vision was nearly normal, and the diagnosis of optic nerve atrophy was based on the optic disk pallor and the visual field defects. Nine of the patients had vision worse than 20/200 in the better eye, when the penicillin treatment was given. The vision has remained stationary for twenty to sixty-seven months after treatment in 10 cases; this includes all the 7 patients whose vision was 20/50 or better in one or both eyes at the time of treatment. Two patients were given a second course of penicillin therapy when their vision became worse after the first course of treatment; one who had been given only 2,400,000 units of penicillin in the first course was given another course of 6,000,000 units, and has shown no further impairment of vision in four years. The other patient, although given 9,600,000 units of penicillin in the second course of treatment, has shown further visual loss. The dosage of penicillin that was found to be effective in the cases of early optic nerve atrophy, i.e., vision 20/50 or better, varied from 4,800,000 to 6,000,000 units. The author is of the opinion that "much larger doses" might be used in the treatment of some cases of syphilitic optic nerve

atrophy, especially if vision is failing rapidly. In some cases also fever treatment might be combined with penicillin therapy; further study of the best methods of treatment for patients with moderate or severe visual damage is necessary.

### COMMENT

Optic nerve atrophy is an extremely slow process, retaining good central vision in good light until the very late stages. When once established no satisfactory control has been found and if penicillin gives the same results for other clinics as are here reported, the dismal outlook of these patients will be changed.

Of late years many fewer cases are seen because of the effective treatment in the early stages of syphilis now available.

R.J.L.

## New Treatment for Calcific Corneal Opacities

W. M. Grant (*A. M. A. Archives of Ophthalmology*, 48:681, Dec. 1952) reports the use of the neutral sodium salt of ethylenediamine tetracetic acid (EDTA). Such calcific corneal opacities may result from lime burns of the eye, or may be associated with band keratopathies of long standing. The opacities may interfere with vision or may cause discomfort of a "scratchy foreign-body" type, due to extrusion of some of the particles through the corneal epithelium. As EDTA does not penetrate the corneal epithelium, the epithelium must be removed before irrigation with the EDTA solution. The eye is then irrigated with a 0.01 M solution of EDTA; this treatment can be carried out with topical anesthesia. In cases of lime burns of the eye with "ground-glass type" of corneal opacities, the EDTA solution should be applied within the first twenty-four hours, i.e., before the epithelium grows over the opacity. It is not necessary in such cases to use EDTA as an emergency measure, if the usual treatment of cleansing and irrigation of the conjunctival sac with water or saline solution is carried out as soon as possible.

### COMMENT

Chemical treatment for lime burns has been quite successful in the past but perhaps this

new remedy may be even more effective. We should take a broader view of these cases because even after the lime-albumen opacities have been removed, the corneal scarring seriously reduces the vision. Lamellar keratectomies have accomplished wonders in this phase of corneal damage.

R.I.L.

### Headache in Ophthalmic Practice

A. J. Lanchner (*Neurology*, 2:471, Nov.-Dec. 1952) reviews a series of 3216 patients who came to have their eyes examined; many of these patients were referred to the ophthalmologist by other physicians, often because of headache. Of the total number of patients 51 per cent were males and 49 per cent were females. Headache was a symptom in 355 patients (11 per cent); in this group 58.3 per cent of the patients were females. Examination showed ocular disorders in 184, or 52 per cent of the 355 patients with headache; the most frequent finding was astigmatism (in 145 patients); presbyopia was found in 19 percent; hypermetropia and overcorrection were found less frequently. Muscular imbalance was found in 39 of the patients with headache, of whom 27 had convergence insufficiency and 12 showed weakness of accommodation. In the patients with positive ocular findings, the headache was frontal in 86 per cent of the cases, but in those without eye symptoms, the headache was frontal in only 53 per cent. As the "great majority" of all the patients examined had an error of refraction, muscle imbalance or some other ocular pathology, it is apparent that only a small percentage of patients with such ocular symptoms suffer from headache, and that some other factor is involved in the causation of headache—possibly a state of emotional tension—with the ocular abnormalities acting as "noxious stimuli."

#### COMMENT

Eye examinations will reveal muscle errors and astigmatism which are frequent causes of headaches but the importance of such examinations in ruling out increased cerebral pressure and evidences of general diseases like diabetes, nephritis and hypertension should be

emphasized. To most patients eye examinations mean testing for glasses only as the average patient overlooks other aspects of the case.

R.I.L.

### Egg Membrane for Chemical Injuries to the Eye

Maurice Croll and L. J. Croll (*American Journal of Ophthalmology*, 35:1885, Nov. 1952) report the use of egg membrane as an adjuvant to the treatment of chemical injuries of the eye in 26 cases. In preparing the egg membrane, the eggs are boiled for twenty minutes, and brought to the operating room in a sterile container; they are peeled so that two large portions of the lining membrane (approximately 0.75x0.75 inches) can be removed intact, and the rest of the membrane is removed in long strips (1.5x0.25 inches). When the patient is first seen after the eye injury, pontocaine (0.5 per cent) is instilled in both eyes; if necessary the patient may also be given an injection of Demerol or morphine sulfate. A history of the time the injury occurred, the chemical involved, and the first-aid treatment given should be obtained; the eye is carefully examined, using a 2 per cent fluorescein stain of the cornea. Atropine is instilled into the eye, and a 30 per cent sodium sulfacetamide solution is instilled intermittently into the conjunctival sac. The cornea and conjunctiva are irrigated with warm sterile water and any foreign body particles removed gently. The egg membrane is prepared as described above, more 0.5 per cent pontocaine is instilled into the eye; one of the square pieces of egg membrane is laid over the cornea and sutured above, while the other piece similarly placed over the cornea is sutured below; each piece of the egg membrane is molded to conform to the shape of the cornea giving "a double layer of protection." The long strips of egg membrane are rolled together and packed into the upper cul-de-sac; pieces of egg membrane are also used in the inner and upper canthus; and pressure dressings are ap-

plied to both eyes. The dressings are first removed in seventy-two hours; if the blepharospasm has subsided, the egg membrane in the cul-de-sacs will "roll out," if not, it can be removed, and if indicated, new egg membrane can be inserted. The cornea is inspected by lifting up the two "curtains" of egg membrane; but the membranes are left until the sixth day when the sutures are removed. In 26 cases treated by this method, the results have been "excellent"; only 2 eyes were lost; in one of these cases there was "direct involvement" with 10.2 per cent phenol, in the other case—a severe lime

burn—the patient was treated fourteen days after the injury. In the other cases, follow-up for one month to forty-two months, shows that sequelae are reduced to a minimum, and that symblepharon did not occur in any case in which egg membrane was used early in treatment.

#### COMMENT

It has been almost impossible in the past to prevent adhesions forming between bulbar and palpebral conjunctiva when both surfaces have been burned by acid or alkali. The use of egg membrane is new and is well worth trying because up to date, nothing comparable with the results reported here have met the eye.

R.I.L.



### Urges Participation in World Medical Association

Physicians have a great stake in world medicine, and should aid in further improvement of world health by participation in the World Medical Association.

This opinion was expressed by Dr. Louis H. Bauer, Hempstead, N. Y., president of the A.M.A. and secretary-general of the W.M.A., following a recent trip to five European countries and to a meeting of the W.M.A. in Portugal.

While no individual can belong to the W.M.A., in the United States and several other countries, supporting committees have been established in which individual membership is possible. In the United States there has been formed the World Medical Association, United States Committee, Inc., a non-profit organization in which medical societies, business organizations, and individuals may become members. By participation in the group "we can have an effective voice in international medical affairs, a voice that is sadly needed," he added.

The World Medical Association is an organization of the national medical associations and represents the practicing profession of the world, Dr. Bauer wrote in a recent *A.M.A. Journal*. It is supported entirely by dues and voluntary contributions, and there is only one member per country. Forty-three nations, with a physician representation of 700,000, are now members of the association; no countries behind the iron curtain are represented.

According to Dr. Bauer, the aims of the World Medical Association are to effect a better liaison among the doctors of the world; to serve as a forum for discussion of mutual problems; to disseminate information; to raise the standards of health, medical education and medical care throughout the world; to represent the practicing profession before other international bodies, when matters of health and medicine are discussed, and to give the average doctor a voice in international affairs; and to improve international relations.

## MEDICAL BOOK NEWS

### Allergy

**Clinical Allergy.** By French K. Hansel, M.D. St. Louis, C. V. Mosby Co., [c. 1953]. 4to, 1,005 pages, illustrated. Cloth, \$17.50.

Dr. Hansel's extensive clinical and teaching experience is reflected in this practical, comprehensive volume covering the entire field of allergy. It is not simply another book, a reiteration of the usual material on the subject; but it is a volume written in a clear, concise manner that has been swept free of the old, questionable theoretical conceptions and methods of treatment and brought entirely up to date on every phase of the specialty. It incorporates all the recent advances in our knowledge of the subject.

The attention given to nomenclature, to the basic concepts of allergy, to techniques of testing, and the information on materials and supplies, as well as the precise instructions and details on therapy, make this a valuable text for the beginner as well as the specialist in allergy.

There are extensive references, helpful tables and illustrations. The printing is clear, the book is well bound, attractive and should be in every practicing physician's library.

SOLOMON SLEPIAN

### Ophthalmology

**Principles of Refraction.** By Sylvester Judd Beach, M.D. St. Louis, C. V. Mosby Co., [c. 1952]. 8vo, 158 pages, illustrated. Cloth, \$4.00.

Whenever Dr. Beach speaks or writes on the subject of refraction his words are

attended with interest and respect. So the reader of this book will obtain a very clear idea of the best way to examine and to prescribe for the patient with a refractive error.

The early chapters seem at first to be oversimplified and are actually very elementary, but as the thesis unfolds and the simplicity of the presentation continues, the subject of refraction becomes increasingly clear.

The book is practical rather than theoretical, and can thus be compressed into its 155 pages, so that it makes easy and smooth reading. There are few illustrations but the clarity of the descriptions obviates their need. The student should especially welcome this presentation, and everyone who does refraction, and what ophthalmologist does not, should read it again and again.

E. CLIFFORD PLACE

### Cardiology

**Handbook of Cardiology for Nurses. The Disease. The Patient. Modern Concepts of Treatment.** By Walter Modell, M.D. New York, Springer Publishing Co., [c. 1952]. 8vo, 246 pages. Cloth, \$3.50.

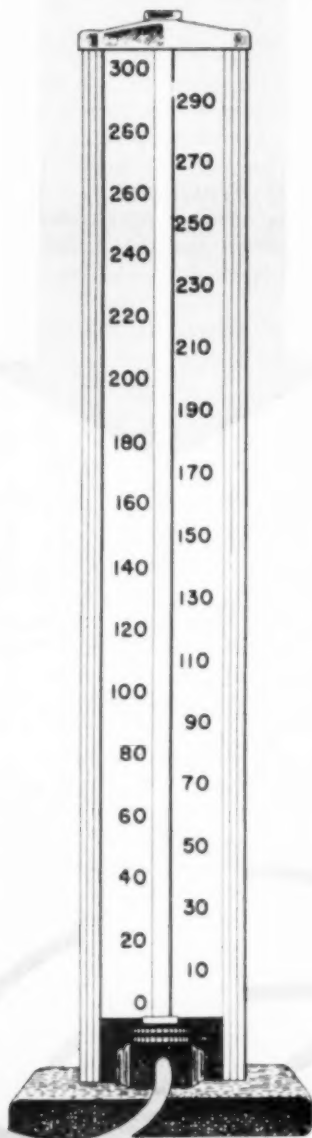
This timely little volume covers all essential aspects of the problem in lucid, well organized style. Chapters on Disorders of Cardiac Rhythm, General Nursing Care and on Drugs are especially noteworthy. More attention might have been given to the section on Psychiatry. Controversial issues are understandably mini-

—Continued on page 569

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1. Parsonnet, A. E., et al.: J. M. Soc. New Jersey 47:504, 1950.

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mized in the interest of simplification, but elements of caution as well as equivocation appear to have been sacrificed in such statements as, "In the United States syphilitic heart disease comprises about 10 percent of all heart disease in adults", and "the outlook for patients with heart disease is now very good." It is questionable, too, whether the nurse should be encouraged to substitute for the physician in his fundamental responsibility for explaining his "technical statements" to the patient. In general, the book meets a long-standing need and should contribute materially to the education of graduate and undergraduate nurses.

ROBERT W. HILLMAN

#### Endocrinology

**Endocrine Treatment in General Practice.** Edited by Max A. Goldzieher, M.D. & Joseph W. Goldzieher, M.D. New York, Springer Publishing Co., [c. 1953]. 8vo. 474 pages, illustrated. Cloth, \$8.00.

This book presents a completely different approach to the field of endocrinology than the usual cumbersome textbooks which endeavor to cover the whole enormous subject.

Twenty-one specialists from different fields of medicine have individually written on their own subject in a straightforward didactic manner. The approach to the diagnosis from the clinical as well as laboratory viewpoint is undertaken, as well as discussion and differential diagnosis. This is followed by the various forms of treatment with recommendations of the specific brands and doses of endocrine preparations to be used. All the subject matter is concisely written so that an exceptional amount of material is covered. The chapters on carbohydrate metabolism, the musculo-skeletal system and the several on female endocrinology seem outstanding. The constructive ap-

proach to the subject of diabetes is especially instructive. The author's rational attempt to improve the diabetic status in the various types of the disease rather than mere treatment of the hyperglycemia with insulin is especially commended. This would seem to be a more physiological approach to the problem of treatment. The inclusion of a dietary prescription booklet simplifies the physician's task of prescribing a diet. This is sufficiently flexible to meet any possible needs.

This four hundred odd page volume is most highly recommended as a textbook and desk reference for all who see endocrine problems but do not find the time to keep abreast of the vast literature on the subject.

CHARLES G. WILLIAMSON

#### Physical Medicine

**Les Ultra-Sons Appliqués à la Médecine.** By André Dénier. [Paris], L'Expansion Scientifique Française, [1951]. 12mo. 192 pages, illustrated.

This short book, written in French, is designed to give the basic principles of ultra sonic propagation and application in the field of therapy. The contra-indications and indications are clearly outlined for the various diseases and systems of the human body. The bibliography is extremely complete. Naturally, most of the authors in the bibliography are European. This bibliography would be a very valuable source for anyone interested in *Les Ultra Sons*. The equipment to generate and propagate ultra sonic vibrations are accurately described. This book will be particularly interesting to the radiologists and physio-therapists. It provides in its few short pages a very complete and accurate summation of ultra sonics.

EARL W. DOUGLAS

—Concluded on page 570

MEDICAL TIMES

'TIS BUT A PART WE SEE, AND NOT A WHOLE

Alexander Pope  
Essay on Man



Although the painful and disabling symptoms of arthritis are mainly confined to the joints, the pathological processes of the disease are systemic.

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## Darthronol for the arthritic

1. Albrecht, F. K.: Modern Management in Clinical Medicine, The Williams and Wilkins Company, Baltimore, 1946, p. 541

J. B. ROERIG AND COMPANY, 536 LAKE SHORE DRIVE, CHICAGO 11, ILLINOIS

(Vol. 81, No. 8) AUGUST 1953

### Biography

**Between Two Worlds. The Memoirs of a Physician.** By Benjamin L. Gordon, M.D. New York, Bookman Associates, [c. The Author, 1952]. 8vo. 354 pages, illustrated. Cloth, \$4.00.

This work might be called an *Odyssey*, showing the spurring effect of racial and religious persecution as an element in the successful achievement of education, accomplishment, and freedom. The author paints a frightening picture of his native town of Neustadt under the persecutions of Czarist Russia, the terror of his Jewish brethren and townsmen under the pogroms inspired by the calumny of the use of Christian blood as a leaven for the matzoth! Killings, burnings, and the transplantation of whole townships to Siberian steppes and other waste lands followed in their wake.

The author's sacrifices, migrations, wanderings, perils to his very life because and for Judaism, make a really inspiring and breath taking account in the first half of the book.

Safety came at last with his arrival in New York, but he was bewildered and handicapped by language difficulties, and were these some difficulties! There follows his growing determination to become a doctor of medicine, but with his limited means this seemed beyond the realm of possibility. But his faith in himself and God spurred him on, to Philadelphia and finally to Jefferson Medical College.

Followed years of study, sacrifice, and stupendous labor to eke out his tuition, and then his M.D. This was only the beginning, but he still had his God and his courage and a growing interest in the Zionist Movement, which was but an ephemeral dream in the minds of many of his fellow Jews. He must see this land of his fathers, and with God's help he would and he did. This makes up the rest

of the book, with one of the finest and most interesting travelogues that it has ever been the reviewer's good fortune to read.

THOMAS F. NEVINS

### Ear, Nose and Throat

**Health Saboteurs.** By Robert William Davis, M.D. New York, Pageant Pr., [c. 1953, The Author]. 8vo. 306 pages, illustrated. Cloth, \$4.00.

This book deals entirely with the question concerning "Tonsils and Adenoids".

The author feels that they serve no useful purpose whatsoever in our present day mode of life, and should be removed surgically at an early age.

He considers them a menace to our health, and in an interesting manner, pictures them, as instigating many other diseases and causing impairments of functions.

Whether one agrees with Dr. Davis or not, the layman, general practitioner, and nose and throat specialist, will find interesting controversial reading material in this book.

GERALD E. PAULEY

### Surgical Anatomy

**The Human Pelvis.** By Carl C. Francis, M.D. St. Louis, C. V. Mosby Co., [c. 1952]. 8vo. 210 pages, illustrated. Cloth, \$5.00.

This is a short, well written, well illustrated book which is designed primarily for surgical residents and practising surgeons who might want a quick and accurate review of the pelvis area. The illustrations are clear and well labeled. The bibliography is very concise and complete and is contained at the end of each chapter. The objective of this book is to review, as its title states, the human pelvis, its contents and development.

EARL W. DOUGLAS

MEDICAL TIMES

# MODERN THERAPEUTICS

## The Results of Nisentil in 1,000 Obstetrical Cases

William M. Kane, after employing Nisentil for obstetrical analgesia in 1,000 patients at the Margaret Hague Maternity Hospital *American Journal of Obstetrics and Gynecology* [65:1010, May (1953)], reports that, from the standpoint of effectiveness and freedom from fetal and maternal side effects, this agent appears to be "an almost ideal drug in the obstetrical field."

The onset of action was rapid and the period of maximum effect relatively short. There was minimal depression of fetal respiration. Satisfactory analgesia was obtained throughout labor in 981 patients, or 98.1 percent of the series.

Administered subcutaneously in dosages ranging from 40 to 60 mg, Nisentil produced a satisfactory level of analgesia in about 15 minutes, and its pain-relieving action persisted for two to three hours. The concomitant administration of scopolamine or barbiturates appeared to prolong the analgesic effects of Nisentil.

In the majority of patients, a single injection of Nisentil provided adequate analgesia throughout labor, but where required, one or two additional injections were given. The response to repeated injections was excellent; 80 percent of cases obtained "full or marked relief at a maximum level."

Confirming previous reports, Kane observed that the duration of labor was shortened in both primigravidas and multigravidas. Maternal side effects were minimal. Eight patients complained of dizziness, but nausea, vomiting, or other untoward manifestations were not en-

countered.

In 4.9 percent of infants, respiratory depression was classified as moderate to marked, as judged by the need for mechanical aid in establishing respiration.

Over-all fetal mortality was 1.7 percent, but Kane states that "none of these deaths were attributable to Nisentil."

As an agent which provides effective analgesia with a significantly low incidence of untoward effects in mother or infant, Kane has found Nisentil to be "a valuable drug in obstetrical analgesia."

## Coronary Atherosclerosis, Blood Lipids Improved by Lipotropic Therapy

I Chylomicron-lipomicron ratios.

Lipid abnormalities in atherosclerosis, as evidenced by increased chylomicrons and lipomicrons in the blood serum and lowered blood phospholipid/cholesterol ratios, were favorably influenced by Methischol, (a synergistic combination of lipotropic agents), report L. M. Morrison and his colleagues in *Angiology*, April 1953 (pp. 123-129, 130-133).

Three different lipotropic preparations were tested on 30 subjects, 10 of whom had coronary atherosclerosis. Allowing a period of one to three days between each test, every patient received each lipotropic formula together with a fat meal. Chylomicron and lipomicron counts were performed by a dark field technique immediately after the fat meal and at hourly intervals for five hours.

Analyzing the results, the investigators concluded "A synergistically acting combination of choline, inositol, methionine and vitamin B complex (Methischol) was more effective in reducing chylomicron and lipomicron counts than choline or inositol alone."

In a second clinical study, phospholipid/cholesterol ratios were increased toward normal in almost every one of 28 patients with coronary atherosclerosis after at least

—Continued on following page

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## MODERN THERAPEUTICS

—Continued from the preceding page

six months of treatment with lipotropic Methischol in adequate dosage plus a low-cholesterol, low-fat diet. Either a lowering of serum cholesterol, or an elevation of serum phospholipids, or both, was achieved, raising the pre-therapy phospholipid/cholesterol ratio from an average of 0.92 to an average of 1.28 after treatment.

This was attended by considerable improvement in clinical status . . . cardiovascular symptoms improved, anginal pain and dyspnea diminished, exercise tolerance increased. Most patients enjoyed a sense of well-being and had a more hopeful outlook for the future.

### Streptomycin and Terramycin Given Together Cut Relapses in Undulant Fever, Navy Medical Group Reports

Combined treatment with the antibiotics terramycin and streptomycin has markedly decreased relapses occurring in victims of brucellosis (undulant fever), it is reported by doctors of the U.S. Naval Medical Research Unit in Cairo, Egypt.

The Navy doctors, summarizing their findings in the A.M.A. *Archives of Internal Medicine*, [91:204-11] note that use of a single antibiotic to treat brucellosis, while valuable, has resulted in a relapse rate as high as 80%. In their series of 23 patients treated with the "antibiotic team," only three patients (14%) had suffered a return of the disease four to seventeen months after treatment.

The physicians, Drs. Gordon B. Magill and John H. Killough add that, "As in a previous study with a single antibiotic, clinical response in the present series was good and control of acute symptoms was adequate."

The physicians note that relief of symptoms of brucellosis with the antibiotics

MEDICAL TIMES

usually requires close to a week of treatment. Since the symptoms of brucellosis—fever and joint pain—are similar to those of the rheumatic diseases, the doctors suggest that cortisone may be a good third member of the drug team. They say that a study using terramycin, streptomycin and cortisone against brucellosis is now under way.

One unusually resistant case of brucellosis is reported by the doctors. The patient was given penicillin and sulfas, three courses of terramycin and two courses of chloromycetin. After each of these treatment periods, which together lasted more than two months, the patient relapsed into his previous condition. Finally the combination of streptomycin and terramycin was tried, with a very high dosage of terramycin.

During the six-week course of treatment with the two drugs the patient received 288 gms. of terramycin and 63 gms. of streptomycin, but he was evidently cured. The doctors report that he has been free of all symptoms and of any signs of the *Brucella* organism in his blood-stream for 16 months.

One reason for the extreme difficulty in eradicating the *Brucella* organism from the body is that, like the tubercle bacillus, it can penetrate into the body's cells where it is very difficult for drugs to follow.

### Penicillin and Terramycin in Toxemias of Pregnancy

Penicillin and terramycin have both been found to offset the symptoms of the puzzling toxemias of pregnancy. The toxic substances which cause the edema of the legs, high blood pressure, headaches, and other symptoms of the diseases are not produced by bacteria, it is believed. Thus, Smith and Reid stated in *Obstetrics & Gynecol.* [1:302 (1953)] that they believed the beneficial effect of these antibiotics was due to neutralization or elimination of circulating toxins. They believed that the

—Concluded on following page—

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## MODERN THERAPEUTICS

—Concluded from the preceding page

toxins are released from the uterus and are similar to the toxins which have been demonstrated to be present in the menstrual discharge.

The action of the antibiotics appeared to be limited to the mother. Thirteen pregnant women with toxemias have been treated. So far the authors had not been able to reduce the mortality rate for infants delivered from women suffering from toxemia. However, this treatment was not used until all conventional methods of treatment had failed to halt the spread of the disease. Encouragement was found in one case in which oral penicillin was given at the first sign of toxemia. In this case, the infant was saved in spite of the fact that the mother was suffering from diabetes and high blood pressure.

## Excretion of Phenosulfonphthalein As an Aid in the Diagnosis of Hypertension

In the presence of conditions which cause a reduction of blood pressure, such as cardiac infarction, the diagnosis of hypertension is often difficult. A controlled study was undertaken and reported by Vallance-Owen in *The Lancet* [1:721 (1953)]. It was found that the phenosulfonphthalein excretion over a period of 2 hours was decreased in the presence of hypertension. There was also a significant reduction below normal in the presence of heart failure alone, but a further significant reduction was observed when hypertension was also present. An excretion of less than 50 per cent P.S.P. in the absence of heart failure or 45 per cent if heart failure is present strongly supports the diagnosis of hypertension. The P.S.P. excretion in normal patients was found to be about 62 per cent in those patients over 45 years of age.

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## not a simple analgesic

The striking clinical benefits of BUTAZOLIDIN in arthritis and allied disorders cannot be due solely to analgesic effect since it has only moderate analgesic effect in non-rheumatic disorders.

## an effective and potent anti-arthritic

BUTAZOLIDIN produces both improvement of function and relief of pain. In rheumatoid arthritis a recent report<sup>1</sup> indicates "major improvement" in 40 of 68 cases. Another notes "marked decrease in swelling, increase in range of motion, and increase in strength" in 41 per cent of patients with lesser improvement in an additional nine per cent.<sup>2</sup> A third study<sup>3</sup> records "appreciable pain relief" in 69 per cent of patients with 50 per cent showing objective evidence of improvement. Similar favorable results have been recorded in gout, spondylitis, osteoarthritis, bursitis, and other painful musculoskeletal disorders. These findings illustrate that BUTAZOLIDIN when properly used provides gratifying therapeutic benefit in a wide variety of painful and disabling disorders.

(1) Kunell, W. C., and Schaffatzick, R. W.: *California Med.* 77:319, 1952. (2) Stephens, C. A. E., Jr., and others: *J.A.M.A.* 150:1084 (Nov. 15) 1952. (3) Steinbrocker, O., and others: *J.A.M.A.* 150:1087 (Nov. 15) 1952.



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# NEWS AND NOTES

## Causes of Children's Headaches Legion

Headaches in children are as varied and as widely dissimilar as they are in grown-ups. They may be caused by eyestrain, illness or excitement, or may be a simple excuse to escape from an unpleasant task, according to Dr. Noah D. Fabricant, Chicago.

Whatever their cause and whether they are simple or complex, children's headaches are fairly obvious and yield handsome response to medical care, Dr. Fabricant wrote in a recent *Today's Health*.

Eyestrain is one of the better known causes of headaches in children, he stated, adding:

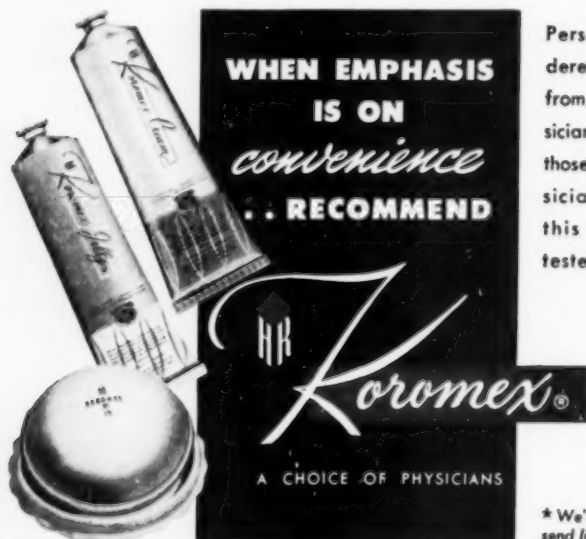
"Temporary blurring of vision is experienced, and the eyes feel tired, hot and

gritty—a feeling that may eventually give place to a dull ache. They tend to become reddened and watery, and chronic irritability leads to constant rubbing of the eyes. Headache may occur in every possible nook and corner of the head, from the top of the skull to the nape of the neck. It can show up as a dull, persistent pain in the forehead, the back of the eyes or the region of the temples."

Another cause of children's headaches is anemia, Dr. Fabricant said. A simple blood examination will confirm this, and relief can be obtained quickly by adequate treatment. Children also frequently complain of headaches upon arising in the morning and immediately after naps. Such headaches, he said, may represent a need for carbohydrates—a need which can be remedied by additional consumption of sweets.

Acute illness commencing with high fever may cause headaches in children, Dr. Fabricant stated. A headache may be an early symptom of scarlet fever, mumps, measles, chicken pox, kidney disorders,

—Continued on page 58a



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## NEWS AND NOTES

—Continued from page 56a

poliomyelitis, or an infection in the ear.

However, a child may just have "head-aches of convenience," Dr. Fabricant said:

"By imitating his parents, a young child may quickly grasp the excuse value of headache as a means of escaping from an undesirable or unpleasant task."

### National Campaign Launched To Prevent Rheumatic Fever

A national rheumatic fever prevention campaign has been launched by the A.H.A. reported a recent *Currents In Infants Care*. Recommendations are outlined in a "Statement on Prevention of Rheumatic Fever" for the guidance of physicians.\*

Penicillin, according to the report, is the drug of choice for treating strep-

toroccal infections. Suggested regimen for children: 300,000 units of procaine penicillin with aluminum monostearate in oil, intramuscularly, every third day for three doses, or 800,000 units oral penicillin daily (in four divided doses) for the first five days, followed by 600,000 units daily (in three divided doses) for an additional five days.

Prophylactic measures against streptococcal infections should be taken for all patients under 18 "who have had rheumatic fever or chorea and all those over this age who have had an attack within five years." The end of the second week of the rheumatic fever attack is recommended as the time to begin prophylaxis, after beta hemolytic streptococci have been eliminated by proper treatment. (The

—Continued on page 61a

\* The Statement may be obtained by writing to affiliated Heart Associations or to the Medical Director, American Heart Association, 44 East 23rd Street, New York 10, N. Y.

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## NEWS AND NOTES

—Continued from page 58a

Statement cautions regarding masked infections in patients receiving ACTH or cortisone, since the prophylactic doses may be inadequate against other concurrent illnesses.) Prophylaxis should be continued at least to the age of 18. Sulfadiazine in doses of 0.5 to 1.0 Gm. daily (the smaller dose for children under 60 pounds) is advised. For those patients who do not tolerate sulfadiazine, oral penicillin represents an alternative.

### Report ACTH Aids in Snake Bite Treatment

Cortisone and corticotropin (ACTH) are valuable adjuvants in the treatment of snake venom poisoning, it was reported in a recent *A.M.A. Journal*.

Three cases in which children bitten by poisonous snakes recovered following cortisone or corticotropin therapy, in addition to standard treatment for such bites, were reported by Drs. William W. Hoback and Thomas W. Green, of the Clinch Valley Clinic Hospital, Richlands, Va.

"We have been impressed by the pronounced decrease in morbidity in these patients, as compared with 11 others seen in the last three years who did not receive cortisone or corticotropin," they stated.

In the three cases described by the doctors, the swelling, pain and elevated temperatures resulting from the bites subsided within a few hours after administration of the hormone drugs. Recovery occurred within a few days.

"The effectiveness of cortisone in these patients is probably due to its remarkable ability to inhibit local tissue reactivity to foreign protein [snake venom] and its symptomatic effects on pain and fever," the doctors stated. "An additional indication for cortisone or corticotropin therapy

—Continued on the following page

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## NEWS AND NOTES

—Continued from the preceding page

(not encountered in these patients) is the frequent generalized urticaria [hives] from the snake venom and from antivenom, especially in cases in which it is necessary to administer additional antivenom.

"It is noteworthy that all these patients were five years old or younger, and a generally poor prognosis would have been expected, because of their age and size.

"It is possible that in such a situation these agents may be life-saving."

### Report Favorable Response to New Antihypertension Drug

Apresoline (trade mark), a relatively new drug, offers promise in the treatment of chronic high blood pressure, it was reported in a recent *Archives of Internal*

*Medicine*, published by the A.M.A.

More than half of 97 persons suffering from the affliction who were given the drug showed a favorable response, according to Drs. R. D. Taylor, Harriet P. Dustan, A. C. Corcoran and Irvine H. Page, all of Cleveland. The doctors are associated with the research division of the Cleveland Clinic Foundation and the Frank E. Bunts Educational Institute.

Twenty-four of the patients achieved a persistently normal (between 60 and 90) diastolic blood pressure (the blood pressure between beats of the heart) following apresoline therapy, the doctors stated. In 33 other cases, diastolic blood pressure reached levels persistently less than 110 and often less than 100. Although the remaining patients were considered therapeutic failures, several showed some measure of improvement.

The relatively high incidence of good

—Continued on page 64a

## Through The Menstrual Years of Life-

THE frequency with which the menstrual life of so many women is marred by functional aberrations that pass the borderline of physiologic limits, emphasizes the importance of an effective uterine tonic and regulator in the practicing physician's armamentarium.

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Pyridoxine HCl (B <sub>6</sub> )	1.0 mg.
Panthenol, equivalent to of calcium pantothenate	10.0 mg.
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Folic acid	2.0 mg.
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Choline— from choline bitartrate	30.0 mg.
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Copper— from copper sulfate	1.0 mg.
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## NEWS AND NOTES

—Concluded from page 62a

responses in patients whose hypertension probably originated in the nervous system accords with the concept that the drug may specifically counteract a chemical, originating in the brain, which is released into the blood stream and causes a rise in blood pressure.

The patients were treated with the preparation for at least three months, and usually for 12 or more months. Fifty-eight were hospitalized for close observation; these, as a group, were more severely ill than the 39 outpatients.

Apresoline was found to be most effective and best tolerated when taken four times daily, after meals and at bedtime. Dosage began at 25 milligrams four times a day, and was increased gradually until blood pressure decreased or to a maximum of 800 milligrams daily. Some favorable responses did not appear until the drug had been taken four to five weeks.

While a majority of the younger patients showed dramatic improvement, following apresoline therapy, in heart complications resulting from the chronic high blood pressure, some of the older patients did not respond well.

Toxic effects from the drug appeared in a majority of the patients, the doctors

pointed out. However, in 83 per cent of those affected, the symptoms disappeared spontaneously or were controlled by other drugs within three to six weeks. The reactions included headaches, swelling of the eyelid or ankle, palpitation, giddiness, a pain in the chest upon effort, nausea, vomiting, and a gripe-like feeling.

### Announcement of Medical Course

The Special Training Division of the Oak Ridge Institute of Nuclear Studies has scheduled an advanced course covering the clinical applications of radioisotopes to be held from September 14-25, 1953. This advanced course, part of the continuing series offered by the Institute, is the second to be concerned with the medical uses of isotopes.

Participation will be limited essentially to those physicians who have had clinical experience with radioisotopes.

Subjects to be discussed in the course include tumor localization, circulatory volumes and outputs, fluid and electrolyte spaces, therapy of blood diseases, theory of radiation dosimetry, radioactivity measurement, gold-198 and other colloids, interstitial and surface applications, teletherapy, iodine-131 in diagnosis and therapy, and external counting.

Additional information and application blanks may be obtained from the Special Training Division of the Institute, P. O. Box 117, Oak Ridge, Tennessee.

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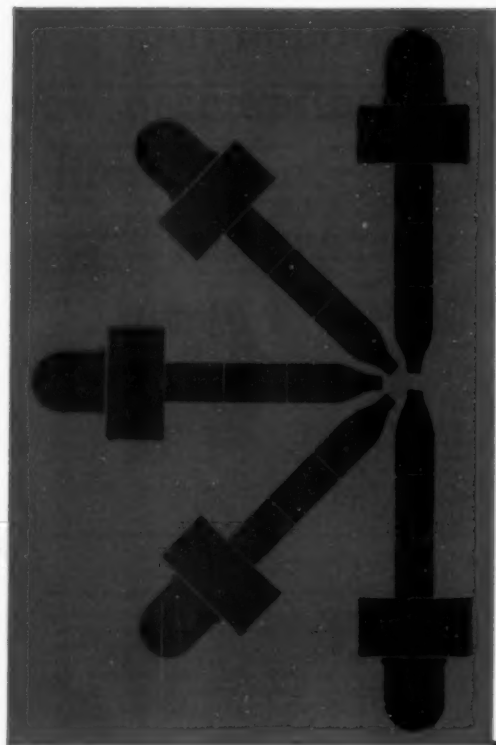
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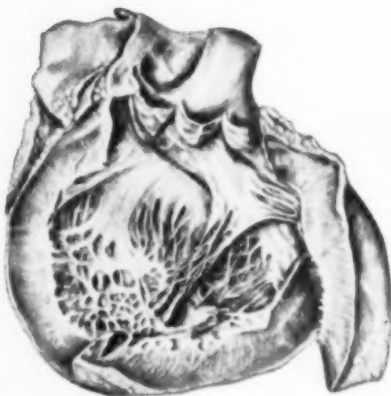
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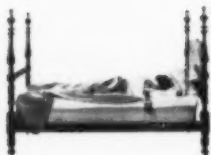
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